DTIC

# UNITED STATES AIR FORCE

# OCCUPATIONAL SURVEY REPORT

## F-15 AVIONICS TEST STATION AND COMPONENTS SPECIALTY AFSC 2A0X1A

OSSN: 2369

JANUARY 2000

20000127 123

OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

DTIC QUALITY INSPECTED 1

**DISTRIBUTION FOR AFSC 2A0X1A OSR**

| | OSR | ANL EXT | TNG EXT | JOB INV | |
|---|---|---|---|---|---|
| AFOMS/OMDQ | 1 | | | | |
| AFOMS/OMYXI | 10 | | 5 | 10 | |
| ARMY OCCUPATIONAL SURVEY BRANCH | 1 | | | | |
| CCAF/DFAX | 1 | | | | |
| DEFENSE TECHNICAL INFORMATION CENTER | 2 | | | | |
| HQ AETC/DOO | 1 | | | | |
| HQ AFPC/DPAAD4 | 1 | | | | |
| HQ AFPC/DPPAPC | 1 | | | | |
| USMC TRAINING AND EDUCATION, STANDARDS BRANCH | 1 | | | | |
| NAVMAC | 1 | | | | |
| 375 LSS/LGLTQ | 1 | | 1 | 1 | |
| HQ ACC/XOSE | 3 | | 3 | | |
| HQ AETC/DPSE | 1 | | 1 | | |
| HQ AFMC/DPEE | 3 | | 3 | | |
| HQ AFSOC/DPPMT | 2 | | 2 | | |
| HQ AFSPC/DPDXE | 3 | | 3 | | |
| HQ AIA/DPT | 3 | | 3 | | |
| HQ AMC/DPPET | 1 | | | | |
| HQ PACAF/DPPET | 2 | | 2 | | |
| 86 MSS/DPMAT (HQ USAFE) | 3 | | 3 | | |
| HQ USAF/ILMM | | 1 | | 1 | 1 |
| 365 TRS/TRR (609 NINTH AVE., BLDG 922, SHEPPARD AFB TX 76311, (ATTN:MSGT MASSEY) | 5 | 1 | 5 | 2 | |
| 782 TRG/TTS (826 AVE G, SUITE 4, SHEPPARD AFB TX 76311-2867) | 1 | | 1 | | |

## TABLE OF CONTENTS


| | PAGE NUMBER |
|---|---|
| **PREFACE** | ix |
| **SUMMARY OF RESULTS** | xi |
| **INTRODUCTION** | 1 |
| Background | 1 |
| **SURVEY METHODOLOGY** | 2 |
| Inventory Development | 2 |
| Survey Administration | 2 |
| Survey Sample | 3 |
| Task Factor Administration | 4 |
| **SPECIALTY JOBS** | 5 |
| Overview of Specialty Jobs | 5 |
| Group Descriptions | 8 |
| Comparison to Previous Study | 12 |
| **ANALYSIS OF DAFSC GROUPS** | 16 |
| **AD DAFSC** | 16 |
| Skill-Level Descriptions | 16 |
| **ANG DAFSC** | 25 |
| Skill-Level Descriptions | 25 |
| **AD/ANG DAFSC** | 31 |
| **TRAINING ANALYSIS** | 34 |
| First-Enlistment Personnel | 34 |
| Task Difficulty (TD) Data | 39 |
| Specialty Training Standard (STS) | 41 |
| **JOB SATISFACTION ANALYSIS** | 44 |

## TABLE OF CONTENTS (CONTINUED)

PAGE
NUMBER

AD JOB SATISFACTION ..... 44

ANG JOB SATISFACTION ..... 44

IMPLICATIONS ..... 50

**TABLE OF CONTENTS**
(Tables, Figures, Appendices)


| | | PAGE NUMBER |
|---|---|---|
| TABLE 1 | COMMAND DISTRIBUTION OF AFSC 2A0X1A PERSONNEL | 3 |
| TABLE 2 | PAYGRADE DISTRIBUTION OF SURVEY SAMPLE | 4 |
| TABLE 3 | RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS | 13 |
| TABLE 4 | SELECTED BACKGROUND DATA FOR SPECIALTY JOBS | 14 |
| TABLE 5 | SPECIALTY JOB COMPARISON BETWEEN CURRENT AND 1996 SURVEYS | 15 |
| TABLE 6 | DISTRIBUTION OF AD SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS (PERCENT RESPONDING) | 18 |
| TABLE 7 | RELATIVE PERCENT TIME SPENT ON DUTIES BY AD SKILL. LEVEL DAFSC GROUPS | 19 |
| TABLE 8 | REPRESENTATIVE TASKS PERFORMED BY AD 2A031A PERSONNEL | 20 |
| TABLE 9 | REPRESENTATIVE TASKS PERFORMED BY AD 2A051A PERSONNEL | 21 |
| TABLE 10 | TASKS WHICH BEST DIFFERENTIATE BETWEEN AD DAFSCs 2A031A AND 2A051A PERSONNEL (PERCENT MEMBERS PERFORMING) | 22 |
| TABLE 11 | REPRESENTATIVE TASKS PERFORMED BY AD 2A071A PERSONNEL | 23 |
| TABLE 12 | TASKS WHICH BEST DIFFERENTIATE BETWEEN AD DAFSCs 2A051A AND 2A071A PERSONNEL (PERCENT MEMBERS PERFORMING) | 24 |
| TABLE 13 | DISTRIBUTION OF ANG SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS (PERCENT RESPONDING) | 26 |
| TABLE 14 | RELATIVE PERCENT TIME SPENT ON DUTIES BY ANG SKILL LEVEL DAFSC GROUPS | 27 |
| TABLE 15 | REPRESENTATIVE TASKS PERFORMED BY ANG 2A051A PERSONNEL | 28 |

## TABLE OF CONTENTS (CONTINUED)
(Tables, Figures, Appendices)


PAGE NUMBER

TABLE 16 REPRESENTATIVE TASKS PERFORMED BY ANG 2A071A PERSONNEL.....29

TABLE 17 TASKS WHICH BEST DIFFERENTIATE BETWEEN ANG DAFSCs .....30
2A051A AND 2A071A PERSONNEL (PERCENT MEMBERS PERFORMING)

TABLE 18 TASKS WHICH BEST DIFFERENTIATE BETWEEN AD DAFSC 2A051A AND
ANG DAFSC 2A051A PERSONNEL (PERCENT MEMBERS PERFORMING).....32

TABLE 19 TASKS WHICH BEST DIFFERENTIATE BETWEEN AD DAFSC 2A071A AND
ANG DAFSC 2A071A PERSONNEL (PERCENT MEMBERS PERFORMING).....33

TABLE 20 RELATIVE PERCENT TIME SPENT ON DUTIES BY FIRST-ENLISTMENT
PERSONNEL (N=117) .....36

TABLE 21 REPRESENTATIVE TASKS PERFORMED BY AFSC 2A0X1A FIRST-
ENLISTMENT PERSONNEL (N=117) .....37

TABLE 22 EQUIPMENT/TOOLS USED BY FIRST-ENLISTMENT AFSC 2A0X1A
PERSONNEL .....38

TABLE 23 TASKS RATED HIGHEST IN TASK DIFFICULTY .....40

TABLE 24 EXAMPLES OF TECHNICAL TASKS PERFORMED BY AFSC 2A0X1A
GROUP MEMBERS SUGGESTED FOR PROFICIENCY CODE REVIEW
TO PERFORMANCE CODING (PERCENT MEMBERS PERFORMING).....42

TABLE 25 EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR
MORE GROUP MEMBERS AND NOT REFERENCED TO THE STS .....43

TABLE 26 COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS AD
GROUPS TO OTHER MAINTENANCE AFSs (PERCENT MEMBERS
RESPONDING).....45

TABLE 27 COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS
AD GROUPS TO THE 1996 SAMPLE (PERCENT MEMBERS
RESPONDING).....46

TABLE 28 COMPARISON OF JOB SATISFACTION INDICATORS BY SPECIALTY
JOBS (PERCENT MEMBERS RESPONDING).....47

**TABLE OF CONTENTS (CONTINUED)**
(Tables, Figures, Appendices)


**PAGE NUMBER**

**TABLE 29** COMPARISON OF JOB SATISFACTION INDICATORS BY AD SPECIALTY JOBS (PERCENT MEMBERS RESPONDING) ..... 48

**TABLE 30** COMPARISON OF JOB SATISFACTION INDICATORS BY ANG SPECIALTY JOBS (PERCENT MEMBERS RESPONDING) ..... 49

**FIGURE 1** AFSC 2A0X1A CAREER LADDER SPECIALTY JOBS (N=421) ..... 7

**FIGURE 2** DISTRIBUTION OF 2A0X1A FIRST-ENLISTMENT PERSONNEL ACROSS SPECIALTY JOBS (N=117) ..... 35

**APPENDIX A** SELECTED REPRESENTATIVE TASKS PERFORMED BY SPECIALTY JOB GROUPS ..... 51

**APPENDIX B** SELECTED REPRESENTATIVE TASKS PERFORMED BY THE SPECIALTY JOBS IN THE F-15 AVIONICS TEST STATION CLUSTER AND IN THE ENTRY LEVEL CLUSTER ..... 53

THIS PAGE INTENTIONALLY LEFT BLANK

## PREFACE

This report presents the results of an Air Force Occupational Survey of the F-15 Avionics Test Station and Components career ladder, Air Force Specialty Code (AFSC) 2A0X1A. Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

The survey instrument was developed by 1Lt Chris Gilliam. Computer programming support was provided by Mr. Tyrone Hill. Mr. James A. Earles. analyzed the data and wrote the final report. This report has been reviewed and approved by Lt Col Roger W. Barnes, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to AFOMS/OMYXI, 1550 5th Street East, Randolph Air Force Base, Texas 78150-4449, or by calling DSN 487-5543. For information on the Air Force occupational survey process or other on-going projects, visit our web site at http://www.omsq.af.mil.

JAMES M. COLLINS, Lt Col, USAF
Commander
Air Force Occupational Measurement Sq

JOSEPH S. TARTELL
Chief, Occupational Analysis Flight
Air Force Occupational Measurement Sq

THIS PAGE INTENTIONALLY LEFT BLANK

## SUMMARY OF RESULTS

1. **Survey Coverage**: The F-15 Avionics Test Station and Components career ladder was surveyed to provide current job and task data for use in updating career ladder documents and training programs. Survey results are based on responses from 421 Active Duty (AD) and Air National Guard (ANG) members accounting for 63 percent of the total population surveyed.

2. **Specialty Jobs**: Two jobs and two clusters were identified in the career ladder structure analysis. A core avionics test station cluster consists of five jobs: tactical intermediate support systems, antenna, displays, displays/computers, and a comprehensive test stations job with a large number of ANG members. An entry-level cluster has a microwave job and a mobile test set job. The two remaining jobs are a supervisor/manager job and an instructor job.

3. **Career Ladder Progression**: Skill-level progression for members of this AFSC is similar to most career ladders. The members advance from the technical aspects of the career ladder to more involvement in supervision and then management as they move up the skill levels. This progression holds only for the AD forces. The ANG personnel at the 7-skill level still devote a high 88 percent of their work time to the technical tasks of the career ladder.

4. **Training Analysis**: The current STS provides comprehensive coverage of the work performed by career ladder personnel. Some STS elements warrant review of proficiency coding based on survey data. Some tasks were not referenced to the STS, but many of these were too general in scope.

5. **Job Satisfaction**: Job satisfaction among AD AFSC 2A0X1A personnel is reasonably high for all airmen tenure groups. F-15 avionics test station airmen rate their work as being as interesting and satisfying as other maintenance career ladders and as the 1996 sample of AFSC 2A0X1A airmen. Reenlistment intentions for first enlistment AD groups are down from the other maintenance career fields and from the 1996 survey sample.

6. **Implications**: Survey results clearly indicate that the present classification structure, as described in the latest specialty description, accurately portrays the jobs performed in this career ladder. Career ladder training documents appear, on the whole, to be well supported by survey data, but require further review to ensure appropriate proficiency coding. The career ladder progression is similar to other AFSCs; technical involvement at the lower skill levels with the progression to more management at the 7-skill level for the AD component. The ANG 7-skill level members report very little nontechnical work time spent. Job interest and satisfaction is fairly high for AD airmen. However, reenlistment intent of first-enlistment airmen is a low 37 percent.

**THIS PAGE INTENTIONALLY LEFT BLANK**

# OCCUPATIONAL SURVEY REPORT (OSR)
# F-15 AVIONICS TEST STATION AND COMPONENTS
# (AFSC 2A0X1A)

## INTRODUCTION

This is a report of an occupational survey of the F-15 Avionics Test Station and Components career ladder conducted by the Air Force Occupational Measurement Squadron (AFOMS). The data from the 2A0X1A survey will be used to identify current utilization patterns among career ladder personnel and evaluate career ladder documents and training programs. The last OSR published for the F-15 Avionics Test Station and Components career ladder was April 1996.

### Background

As described in the AFMAN 36-2108 *Specialty Description,* dated 31 October 1999, Avionics Test Station and Aircraft Components personnel are responsible for:

- Analyzing performance and isolating malfunctions of avionics test equipment, support equipment, and aircraft components
- Inspecting, maintaining, programming, and calibrating avionics equipment, support equipment, and aircraft components
- Managing integrated avionics activities and complying with directives, policies, and procedures
- Planning and organizing integrated avionics activities

Personnel entering the AFSC 2A0X1A career ladder must attend the Electronic Principles Course, L3AQR2A031A 125, 63 days at Lackland AFB TX and the F-15 Avionic Test Station and Aircraft Component Apprentice Course, J3ABR2A031A 003, 74 days at Sheppard AFB TX, Upon completion of these AFSC courses, the graduate is awarded the 3-skill level.

Entry into this career ladder currently requires an Armed Forces Vocational Aptitude Test Battery (ASVAB) score of Electronics - 67; a strength factor of "G" (Weight lift of 40 lbs), normal color vision, and freedom from fear of heights.

**APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED**

## SURVEY METHODOLOGY

### Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Occupational Survey Study Number (OSSN) 2369, dated December 1998. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 10 subject-matter experts (SMEs) at the following training location and operational installation:

| BASE | UNIT VISITED |
|---|---|
| Mountain Home AFB ID | 366 CRS/ILM |
| Sheppard AFB TX | 365 TRS/TRR |

The resulting JI contained a comprehensive listing of 909 tasks grouped under 18 duty headings. Also included was a background section requesting such information as grade, base, MAJCOM assigned, organizational level, component status, job title, functional area, and test equipment/tools used.

### Survey Administration

From April - July 1999, base training offices at operational units worldwide administered the inventory to eligible AFSC 2A0X1A personnel. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX. Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount time spent). To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time spent for each task. This procedure compares tasks in terms of both percent members performing and average percent time spent.

## Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across major commands (MAJCOMs) and military paygrade groups. All eligible AD and ANG AFSC 2A0X1A personnel were mailed survey disks. The 421 respondents in the final sample represent 58 percent of the total assigned personnel as of September 1999 and 63 percent of the total personnel surveyed. Table 1 reflects the percentage distribution, by MAJCOM, of assigned AFSC 2A0X1A personnel. Table 2 reflects the paygrade distribution for these AFSC 2A0X1A personnel.

TABLE 1

COMMAND DISTRIBUTION OF AFSC 2A0X1A PERSONNEL

| COMMAND | PERCENT OF ASSIGNED* | PERCENT OF SAMPLE |
|---|---|---|
| USAFE | 15 | 15 |
| AETC | 9 | 12 |
| PACAF | 17 | 14 |
| ACC | 40 | 42 |
| AFMC | 6 | 5 |
| ANG | 13 | 12 |

TOTAL ASSIGNED* = 728
TOTAL SURVEYED** = 673
TOTAL IN SURVEY SAMPLE = 421
PERCENT OF ASSIGNED IN SAMPLE = 58%
PERCENT OF SURVEYED IN SAMPLE = 63%

* Assigned strength as of September 1999

** Excludes personnel in PCS, student, or hospital status, or less than 6 weeks on the job

TABLE 2

PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

| GRADE | PERCENT OF ASSIGNED* | PERCENT OF SAMPLE |
|---|---|---|
| E-1 - E-2 | 5 | 4 |
| E-3 | 17 | 17 |
| E-4 | 22 | 24 |
| E-5 | 33 | 35 |
| E-6 | 15 | 14 |
| E-7 | 8 | 6 |
| E-8 | 0 | 0 |

* Assigned strength as of September 1999

Command and paygrade distributions of the survey sample are fairly close to the percent assigned. PACAF is somewhat under represented and AETC is somewhat over represented. However, the survey sample is a reasonable representation of the career ladder population and is acceptable for analysis.

## Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 2A0X1A personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). These booklets were processed separately from the JIs. This information is used in a number of different analyses discussed in more detail within the report.

**Training Emphasis (TE)**: TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 12 senior NCOs who completed a TE booklet were asked to select tasks they felt require some sort of structured training for entry-level personnel and then indicate how much TE these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident training schools, field-training detachments (FTD), mobile training teams (MTT), formal on-the-job-training (OJT), or any other organized training method. Interrater agreement for these 12 raters was **not** acceptable. Because these raters failed to provide a consistent opinion about what tasks required emphasized training, no results from the TE survey will be provided.

**Task Difficulty (TD)**: TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 12 senior NCOs who completed TD booklets were asked to rate the TD using a 9-point scale (extremely low to extremely high). Interrater reliability was acceptable. Ratings were standardized so tasks have an average difficulty of 5.00 and a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered to be difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TD ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

## SPECIALTY JOBS

The first step in the analysis process is to identify the structure of the career ladder in terms of the jobs performed by the respondents. The Comprehensive Occupational Data Analysis Program (CODAP) assists by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on these tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, CODAP either adds new members to this initial group, or forms new groups based on the similarity of tasks and time spent ratings.

The basic group used in the hierarchical clustering process is the ***Job***. When two or more jobs have a substantial degree of similarity in tasks performed and time spent on tasks, they are grouped together and identified as a ***Cluster***. The structure of the career ladder is then defined in terms of jobs and clusters of jobs.

### Overview of Specialty Jobs

Based on the analysis of tasks performed and the amount of time spent performing each task, two independent jobs and two clusters of jobs were identified within the career ladder. Figure 1 illustrates the jobs and clusters performed by AFSC 2A0X1A personnel.

A listing of these jobs and clusters is provided below. The stage (STG) number shown beside each title references computer printed information, the letter "N" indicates the number of personnel in each cluster or independent job.

I. F-15 Avionics Test Station Cluster (STG15, N=313)

A. Tactical Intermediate Support System Job
B. Antenna Test Station Job
C. Displays Test Station Job
D. Displays/Computers Test Stations Job
E. Test Stations Job

II. Entry-Level Cluster (STG18, N=31)

A. Microwave Test Station Job
B. Mobile Electronic Test Set Job

III. Supervisor/Manager Job (STG42, N=45)

IV. Instructor Job (STG12, N=5)

The respondents forming these jobs and clusters account for 93 percent of the survey sample. The remaining 7 percent, for one reason or another, did not group into one of these jobs or clusters. Examples of job titles for these personnel include Tech Order Distributor, Network Administrator, Repair Cycle Monitor, Prod Improvement Manager, Circuit Card Repairman, Quality Assurance Inspector, Building Custodian, and F-15 Fighter Requirements.

# AFSC 2A0X1A CAREER LADDER SPECIALTY JOBS
# (N = 421)

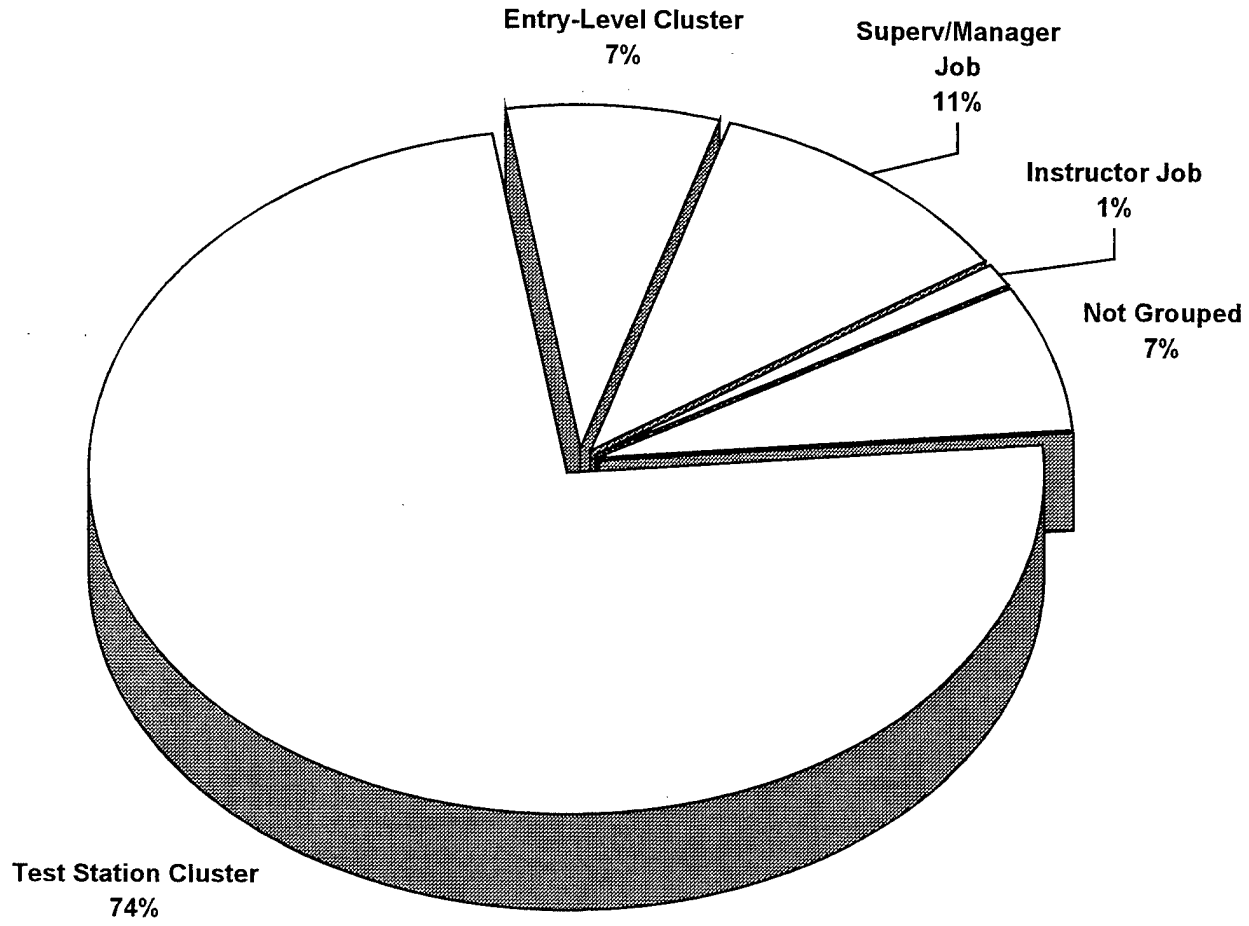


**FIGURE 1**

## Group Descriptions

The following paragraphs contain brief descriptions of the clusters and jobs identified through the career ladder structure analysis. Table 3 presents the relative time spent on duties by members of these specialty clusters and jobs. Selected background data for these jobs and clusters are provided in Table 4. Table 5 shows a job comparison between the current and 1996 surveys. Representative tasks for all the groups are contained in Appendix A. Representative tasks for the jobs that make up the two clusters are in Appendix B.

**I. F-15 AVIONICS TEST STATION CLUSTER (STG015).** The 313 airmen performing within this cluster (74 percent of the survey sample) represent the core of the career ladder. They perform a broad range of test station activities including tactical intermediate support system (TISS), displays, antenna, computer, indictors and controls, and microwave. However most members specialize somewhat in one or two of these duty areas. About half selected electronic Warfare (EWS) and half Auto as their test station job title. This cluster is divided into five jobs based on an emphasis on specialization of tasks, although all members perform many of the typical general avionics maintenance test station and core automated maintenance system (CAMS) tasks (see Table B1). The personnel in the F-15 Avionics Test Station cluster are shown in Table 3 to perform activities encompassing avionics test station technical tasks including CAMS (duties A-L), on average 89 percent of their time. The average number of tasks performed by this group is 181, the highest of any other cluster or independent job, indicating the diversity of this core cluster. Because these core members split off into five jobs, the tasks they have in common are from duty area A, general avionics maintenance activities, and are therefore not very informative. However, representative tasks for each of the five jobs can be found in Appendix B. Representative tasks for this combined cluster include:

Perform periodic inspections of test stations
Perform electrostatic discharge (ESD) procedures
Access core automated maintenance system (CAMS) menus and data screens
Perform corrosion control on test stations, test equipment, or LRUs
Clean test stations or test station equipment
Clear or close out completed maintenance discrepancies in CAMS
Remove or replace LRU minor hardware
Remove or replace LRU pins or connectors
Remove or replace test station minor hardware
Perform operational assurance/fault isolation (OA/FI) tests
Change CAMS workcenter event narratives
Remove or replace test station pins or connectors
Remove or replace power supplies
Clean shop facilities
Prepare equipment for turn-in

Fifty-eight percent of these airmen hold the 5-skill level, with 28 percent at the 3-skill level and 14 percent at the 7-skill level. The predominant paygrades of this large cluster are E-4 (27 percent) and E-5 (38 percent). Eighty-four percent of these airmen are AD, averaging over 6 1/2 years in the career field and 7 years Total Active Federal Military Service (TAFMS.) Twenty-nine percent of the AD members are in their first enlistment. One-third are overseas.

The five distinct jobs within this cluster are separated by the type and frequency of the tasks performed. These jobs will be addressed because most have significant numbers of airmen and represent the typical work of the 2A0X1A cadre. Tables providing the most frequently performed tasks performed by these job members are in Appendix B.

The **Tactical Intermediate Support System Job (N=81)** is differentiated by the high percent of time spent by members performing the tactical electronic warfare system (TEWS) intermediate support system (TISS) activities of Duty J (see Table B1). All 81 members in this job troubleshoot TISSs and perform internal self-tests, confidence tests, and diagnostic tests on TISSs. Also Table B2 shows that more than 80 percent trouble shoot or repair AN/ALQ-135 and AN/ALR-56 components such as Rf amplifiers, control oscillators, tuning units, receivers, power supply processors, and TEWS displays. EWS Test Station Member or Leader was the job title marked by two-thirds of these members. Half are supervisors, and two-thirds are 5-skill level or higher. Almost all are AD and they average 7 years TAFMS. They perform an average of 114 tasks.

The **Antenna Test Station Job (N=62)** is defined by the members highest percentage of time spent on the Duty G antenna test station activities. At least 94 percent of these job members troubleshoot or repair 011/111s, 610s, and 031s (Table B3). The test station they maintain is the antenna A and antenna B test station. Eighty percent selected EWS Test Station Member or Leader for their job title. Members in this job are almost all AD and perform an average of 105 tasks. Fifty percent of these airmen are 3-skill level and the AD average just over 5 years TAFMS. Only 42 percent are supervisors.

The **Displays Test Station Job (N=13)** consists of a small number of airmen who are shown in Table B1 to spend 45 percent of their time on the displays test station activities (Duty E). Most of their remaining time is spent on general avionics maintenance and CAMS activities (Duties A and L). This job is somewhat similar to the following Displays and Computers Test Station Job but much less intensive in the number of tasks performed. These airmen perform an average of 92 tasks. All of these personnel program test, troubleshoot, and repair multipurpose displays (MPDs), multipurpose color displays (MPCDs), and MPCD processors (MPCDPs) (Table B4). This is an AD job, 46 percent of its members are 3-skill level, and paygrades E-3 and E-4 each consist of 31 percent of the total. These AD airmen average 5 2/3 years TAFMS with 54 percent supervising.

The **Displays/Computers Test Station Job (N=73)** is a more expansive job in the F-15 Avionics Test Station Cluster. However it is still characterized by the large amount of time (27 percent) its members spend on Duty E, maintaining F-15 displays test stations and assigned LRUs (Table B1). They perform 14 percent of their time on Duty D, computer test stations, and 13

percent on Duty F, microwave test stations. A "/Microwave" could have been added to this job title. Table B5 shows they almost all program test, troubleshoot, or repair MPCDs, PSDPs, ANMIs, 081/082s, and IREs. This is the first real involvement of ANG members at 21 percent; the rest are AD. The 5-skill level predominates with 62 percent and more than half are at the E-5 or E-6 paygrades. The AD personnel average just under 8 years TAFMS. On average these display/computer (and /microwave) avionics test station airmen perform 195 tasks.

The fifth and last job in this core cluster is the **Test Station Job (N=81).** This job is characterized by a small amount (from 11 to 8 percent) of time spent being distributed across activities in each of five avionics test station duties. Indicators and controls is at 11 percent, TISS at 11 percent, displays at 11 percent, antennas at 9 percent, and computers at 8 percent (Table B1). Not surprisingly, because ANG members often are required to cover a broad spectrum of a career field, the ANG proportion at one-third of the membership is greater than in any other test station job. The AD members average almost 9 years TAFMS, the most experience in any of the five jobs. Two-thirds are 5-skill level, and 22 percent are 7-skill level. Two-thirds are paygrade E-5 or higher. They perform on average a very large number of tasks (310).

**II. <u>ENTRY-LEVEL CLUSTER (ST18).</u>** The 31 members of this cluster (7 percent of the sample) of mostly first-term airmen are divided into two jobs, a microwave test station job and a mobile electronic test set job. The greatest amount of their time is spent on Duty A, general avionics maintenance activities. Seventy-seven percent selected the job title of Auto Test Station Member. These personnel are fairly early in their career path and on average perform only 82 tasks which include:

Perform periodic inspections of test stations
Clean test stations or test station equipment
Perform electrostatic discharge (ESD) procedures
Access core automated maintenance system (CAMS) menus and data screens
Perform corrosion control on test stations, test equipment, or LRUs
Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups
Prepare equipment for turn-in
Remove or replace LRU minor hardware
Remove or replace LRU pins or connectors
Remove or replace test station minor hardware
Change CAMS workcenter event narratives
Inspect or clean simulators, mock-ups, or line replaceable units (LRUs)

They are split between 3- and 5- skill levels at 77 and 23 percent and more than half are E-3 paygrade. All are AD with an average TAFMS of 3 years and 3 months.

The **Microwave Test Station Job (n=11)** has its members spending 23 percent of their time on F-15 microwave test stations as well as the 44 percent on general avionics maintenance activities (Table B1). Table B8 shows they operationally check, confidence test, troubleshoot, and repair microwave test stations (MTSs). They also troubleshoot and repair 081/082s. Eighty-two percent are 3-skill level, and 73 percent are paygrades E-2 and E-3. These airmen are all AD

and average just 2 years 8 months TAFMS. They only perform an average of 65 tasks. Just over 80 percent of these airmen are in ACC and three-fourths are stationed in CONUS.

The **Mobile Electronics Test Set Job (n=15)** is the second early-experience job. Members spend 28 percent of their time on mobile electronic test set activities in addition to 36 percent of their time on general avionics maintenance activities (Table B1). They operationally check, troubleshoot, and repair remote map readers (RMRs), up-front control panels (UFCPs), and intercommunications set control panels (ICSCPs) as well as other test station equipment (Table B9). Eighty-seven percent are 3-skill level, and 73 percent are paygrades E-2 and E-3. These airmen are all AD and average just 2 years 8 months TAFMS. They perform an average of 94 tasks. Eighty-seven percent of these airmen are in ACC and 80 percent are CONUS.

**III. SUPERVISOR/MANAGER JOB (ST042)** The 45 airmen in this job (11 percent of the survey sample) spend 45 percent of their time on the management and supervisory activities of Duty O (Table 3). Altogether, they spend a total of 89 percent of their time on the non-technical activities of Duties L through R. Almost all in their self-provided job titles use one of the following: chief, superintendent, manager, or supervisor, and in fact, all supervise two or more airmen. Tasks done by most members include:

Counsel subordinates concerning personal matters
Write or indorse military performance reports
Interpret policies, directives, or procedures for subordinates
Evaluate personnel for compliance with performance standards
Conduct supervisory performance feedback sessions
Write recommendations for awards or decorations
Inspect personnel for compliance with military standards
Conduct self-inspections or self-assessments
Develop or establish work schedules
Evaluate personnel for promotion, demotion, reclassification, or special awards
Establish performance standards for subordinates
Initiate actions required due to substandard performance of personnel
Conduct supervisory orientations for newly assigned personnel
Determine or establish work assignments or priorities
Implement safety or security programs

The predominant paygrades of this job are E-6 and E-7 at 42 and 38 percent respectively. Eighty-four percent are 7-skill level. All are AD and average 14 years 4 months in the career field and over 17 1/2 years in the service (Table 4).

**IV. INSTRUCTOR JOB (ST012).** The 5 airmen forming this final job (1 percent of the survey sample) are distinguished by 48 percent of their time being spent performing training tasks in Duty P. Another 28 percent of their time is spent on management, administration, and equipment activities. This leaves 24 percent of their time credited to the performance of

technical avionics test station and CAMS activities, presumably as part of their instructional responsibilities. Four are at Sheppard AFB and one is at Lackland AFB. All conduct formal classroom training. They average 38 tasks performed. Representative tasks performed by these incumbents include:

Conduct formal course classroom training
Administer or score tests
Personalize lesson plans
Counsel trainees on training progress
Maintain training records or files
Counsel subordinates concerning personal matters
Perform operational assurance/fault isolation (OA/FI) tests
Interpret system diagrams or schematics
Interpret policies, directives, or procedures for subordinates
Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)
Develop written tests
Inspect personnel for compliance with military standards
Develop or procure training materials or aids

All of these airmen are AD and belong to AETC. They average 10 years 2 months in the career field and over 10 years 4 months TAFMS. Their predominant paygrade is E-5 (80 percent.) and most hold the 5-skill level (Table 4).

## Comparison to Previous Study

Table 5 lists the jobs/clusters identified in this report and compares them to the enlisted jobs of the 1996 report (minus the F-111 jobs). All but one job identified in this report, the all encompassing Test Stations Job within the F-15 Avionics Test Station Cluster, matched similar jobs in the previous report. The Test Stations Job was one-third ANG and involved all technical areas of the career field. The previous report, with more than twice the sample size, had two very small jobs, Circuit Card Repair (n=6) and Unit Training (n=5) which were not found in the current analysis. Finally, a third job in the 1996 report, Production Control, which had 22 members most of whom were repair cycle monitors, was not found. Only two members in the current sample listed themselves as repair cycle monitors. These differences between the two surveys are minor and not indicative of any significant change in the career field beyond the removal of the F-111.

TABLE 3

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

| | DUTIES | Avionics Test Sta Cluster (ST 15) (N=313) | Entry Level Cluster (ST 18) (N=31) | Supervisor/ Manager Job (ST 42) (N=45) | Instructor Job (ST 12) (N=5) |
|---|---|---|---|---|---|
| A | PERFORMING GENERAL AVIONICS MAINTENANCE ACTIVITIES | 25 | 40 | 6 | 9 |
| B | MAINTAINING MANUAL TEST SETS, MOCK-UPS, AND LRUS | 1 | 2 | 0 | 0 |
| C | MAINTAINING ELECTRONIC WARFARE TEST STATIONS AND LRUS | 0 | 0 | 0 | 0 |
| D | MAINTAINING F-15 COMPUTER TEST STATIONS AND LRUS | 5 | 10 | 1 | 0 |
| E | MAINTAINING F-15 DISPLAYS TEST STATIONS AND LRUS | 11 | 3 | 1 | 1 |
| F | MAINTAINING F-15 MICROWAVE TEST STATIONS AND LRUS | 5 | 8 | 1 | 0 |
| G | MAINTAINING F-15 ANTENNA A AND B TEST STATIONS AND LRUS | 10 | 0 | 1 | 4 |
| H | MAINTAINING F-15 COMMUNICATIONS, NAVIGATION, AND IDENTIFICATION (CNI) TEST STATIONS AND LRUS | 1 | 1 | 0 | 0 |
| I | MAINTAINING F-15 INDICATORS AND CONTROLS TEST STATIONS AND LRUS | 5 | 2 | 0 | 0 |
| J | MAINTAINING TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) INTERMEDIATE SUPPORT SYSTEM (TISS) AND LRUS | 14 | 0 | 1 | 4 |
| K | MAINTAINING MOBILE ELECTRONIC TEST SET AND LRUS | 2 | 14 | 0 | 0 |
| L | PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES | 10 | 12 | 11 | 6 |
| M | PERFORMING MOBILITY AND CONTIGENCY ACTIVITIES | 2 | 1 | 5 | 0 |
| N | PERFORMING GENERAL AIRCRAFT OR CROSS UTILIZATION TRAINING (CUT) ACTIVITIES | 0 | 0 | 0 | 0 |
| O | PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 4 | 2 | 45 | 15 |
| P | PERFORMING TRAINING ACTIVITIES | 2 | 2 | 11 | 48 |
| Q | PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES | 1 | 1 | 10 | 8 |
| R | PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 2 | 2 | 7 | 5 |

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

| | Avionics Test Station Cluster (ST 15) | Entry Level Cluster (ST 18) | Supervisor/ Manager Job (ST 42) | Instructor Job (ST 12) |
|---|---|---|---|---|
| NUMBER IN GROUP | 313 | 31 | 45 | 5 |
| PERCENT OF SAMPLE | 74 | 7 | 11 | 1 |
| PERCENT IN CONUS | 66 | 74 | 71 | 100 |
| DAFSC DISTRIBUTION: | | | | |
| 2A031A | 28 | 77 | 0 | 0 |
| 2A051A | 58 | 23 | 16 | 80 |
| 2A071A | 14 | 0 | 84 | 20 |
| 2A091A | 0 | 0 | 0 | 0 |
| COMPONENT STATUS: | | | | |
| ACTIVE DUTY | 84 | 100 | 100 | 100 |
| AIR FORCE RESERVE COMMAND | 0 | 0 | 0 | 0 |
| AIR NATIONAL GUARD | 16 | 0 | 0 | 0 |
| PAYGRADE DISTRIBUTION: | | | | |
| E-1 – E-3 | 22 | 68 | 0 | 0 |
| E-4 | 27 | 16 | 0 | 0 |
| E-5 | 38 | 16 | 20 | 80 |
| E-6 | 12 | 0 | 42 | 20 |
| E-7 | 1 | 0 | 38 | 0 |
| E-8 | 0 | 0 | 0 | 0 |
| E-9 | 0 | 0 | 0 | 0 |
| AVERAGE MONTHS IN CAREER FIELD * | 79 | 37 | 172 | 122 |
| AVERAGE MONTHS IN SERVICE * | 85 | 40 | 211 | 124 |
| PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS) * | 29 | 75 | 0 | 0 |
| PERCENT SUPERVISING | 50 | 26 | 100 | 0 |
| AVERAGE NUMBER OF TASKS PERFORMED | 181 | 82 | 93 | 38 |

**Active Duty Only*

TABLE 5

SPECIALTY JOB COMPARISON BETWEEN CURRENT AND 1996 SURVEYS

| CURRENT SURVEY (N=421) | 1996 SURVEY* (N=912) |
|---|---|
| I. F-15 Avionics Test Station Cluster | |
| a. TEWS Intermediate Support System Job | I. TEWS/TISS Maintenance Job |
| b. Antenna Test Station Job | II. Antenna and Indicators and Controls Test Station Maintenance Cluster |
| c. Displays Test System Job | |
| d. Displays/Computers Test Station Job | VII. F-15 Displays and Computers Test Station Job |
| e. Test Stations Job | |
| II. F-15 Avionics Test Station Entry-Level Cluster | |
| a. Microwave Test Station Job | III. Microwave Test Station Maintenance Job |
| b. Mobile Electronic Test Set Job | VIII. Mobile Electronic Test Set Maintenance Job |
| III. Supervisor/Manager Job | XII. Supervision Job |
| IV. Instructor Job | XIV. Technical School Training Job |
| Not Matched | X. Circuit Card Repair Job<br>XI. Production Control Cluster<br>XIII. Unit Training Job |

* Four jobs in the 1996 survey were F-111 jobs (IV., V., VI., and IX.)

## ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as the AFMAN 36-2108 *Airman Classification,* Specialty Description and the Career Field Education and Training Plan (CFETP), reflect what career ladder personnel are actually doing in the field.

## AD DAFSC

The distribution of AD skill-level groups across the career ladder jobs and clusters is displayed in Table 6, while Table 7 offers another perspective by displaying the relative percent time spent on each duty across skill-level groups. A more-or-less typical pattern of progression for large career fields is noted within the AFSC 2A0X1A career ladder. Personnel at the 3-skill level work in the technical jobs of the career ladder and spend most of their time on technical tasks. As incumbents advance to the 5-skill level they begin to perform some supervisory and training tasks, but they are the core of the avionics test station workforce and spend most of their time performing the technical tasks of the career ladder. At the 7-skill level, individuals have moved further away from the technical tasks and are performing more supervisory and management functions.

### Skill-Level Descriptions

**DAFSC 2A031A** Representing 27 percent of the survey sample, these 115 AD airmen perform an average of 99 tasks. Seventy-seven percent of this group work in the F-15 Avionics Test Station Cluster (Table 6), with 21 percent performing in the Entry-Level Cluster.

Table 7 reflects the percent time spent on duties by DAFSC 2A031A AD personnel. Eighty-one percent of their time is distributed among the technical tasks of the mostly "maintaining specific test stations and associated LRUs" Duties A-K. Another 12 percent of their time is taken up with CAMS activities. The tasks performed by the greatest percentage of these members are listed in Table 8 and come entirely from general avionics maintenance activities and CAMS activities. The 3-skill level airmen perform an average of 99 tasks.

**DAFSC 2A051A** The 185 members of this AD group account for 44 percent of the survey sample and represent the core of the career ladder. Eighty-three percent work in the technical F-15 Avionics Test Station Cluster (Table 6) and 71 percent of work time for these AD 5-skill level airmen is spent on the technical test station duties A-K with CAMS using an additional 11 percent (Table 7). These members perform an average of 175 tasks.

Table 9 shows those tasks done by the highest percentage of members, and, as with the AD 3-skill levels, almost all of these tasks are general avionics or CAMS. Tasks belonging to any specific test station will not be done by a high percentage of members because almost every 5-skill level specializes somewhat in one or two stations. Table 10 reflects those tasks which best differentiate the AD 3-skill levels from the AD 5-skill levels. There are no tasks that the 3-skill levels are reasonably more likely to perform than the 5-skill levels so there are no positive differences to report in Table 10. However, the 5-skill levels perform additional tasks not performed by very many at the 3-skill level (the negative differences), especially in the management/supervisory and training areas.

**DAFSC 2A071A** These 72 AD members perform an average of 122 tasks and represent 17 percent of the survey sample. Table 6 shows the highest percent of members are in the Supervisor/Manager Job at 53 percent. Table 7 gives the time spent on duties and reinforces the decreasing technical share and increasing management share of the 7 skill-level responsibilities. None-the-less, the average of 26 percent of time spent on technical avionics test station duties shows that this AD group still performs the core tasks of this career field.

Table 11 gives those tasks done by the most members and shows all are non-technical tasks from Duties M-R. This is a complete change from Table 9 tasks for 5-skill level airmen. Table 12 reflects tasks which best differentiate between 5- and 7-skill levels. This table clearly shows the much higher devotion to supervisory/management activities such as scheduling, evaluating assigning, initiating and implementing at the 7-skill level than the 5-skill level.

TABLE 6

DISTRIBUTION OF AD SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

| SPECIALTY JOBS | | ACTIVE 2A0X1A (N=372) | ACTIVE 2A031A (N=115) | ACTIVE 2A051A (N=185) | ACTIVE 2A071A (N=72) |
|---|---|---|---|---|---|
| I. | F-15 AVIONICS TEST STATION CLUSTER | 72 | 77 | 83 | 29 |
| II. | ENTRY-LEVEL CLUSTER | 8 | 21 | 4 | 0 |
| III. | SUPERVISOR/MANAGER JOB | 12 | 0 | 4 | 53 |
| IV. | INSTRUCTOR JOB | 1 | 0 | 2 | 1 |
| | NOT GROUPED | 7 | 2 | 7 | 17 |

TABLE 7

RELATIVE PERCENT TIME SPENT ON DUTIES BY AD SKILL LEVEL DAFSC GROUPS

| DUTIES | | ACTIVE 2A0X1A (N=372) | ACTIVE 2A031A (N=115) | ACTIVE 2A051A (N=185) | ACTIVE 2A071A (N=72) |
|---|---|---|---|---|---|
| A | PERFORMING GENERAL AVIONICS MAINTENANCE ACTIVITIES | 24 | 31 | 25 | 11 |
| B | MAINTAINING MANUAL TEST SETS, MOCK-UPS, AND LRUS | 1 | 1 | 1 | 0 |
| C | MAINTAINING ELECTRONIC WARFARE TEST STATIONS AND LRUS | 0 | 0 | 0 | 0 |
| D | MAINTAINING F-15 COMPUTER TEST STATIONS AND LRUS | 4 | 5 | 5 | 2 |
| E | MAINTAINING F-15 DISPLAYS TEST STATIONS AND LRUS | 8 | 8 | 11 | 3 |
| F | MAINTAINING F-15 MICROWAVE TEST STATIONS AND LRUS | 4 | 4 | 5 | 2 |
| G | MAINTAINING F-15 ANTENNA A AND B TEST STATIONS AND LRUS | 8 | 13 | 6 | 3 |
| H | MAINTAINING F-15 COMMUNICATIONS, NAVIGATION, AND IDENTIFICATION (CNI) TEST STATIONS AND LRUS | 1 | 1 | 1 | 0 |
| I | MAINTAINING F-15 INDICATORS AND CONTROLS TEST STATIONS AND LRUS | 3 | 2 | 4 | 1 |
| J | MAINTAINING TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) INTERMEDIATE SUPPORT SYSTEM (TISS) AND LRUS | 10 | 12 | 11 | 4 |
| K | MAINTAINING MOBILE ELECTRONIC TEST SET AND LRUS | 3 | 4 | 2 | 0 |
| L | PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES | 11 | 12 | 11 | 9 |
| M | PERFORMING MOBILITY AND CONTIGENCY ACTIVITIES | 2 | 2 | 2 | 4 |
| N | PERFORMING GENERAL AIRCRAFT OR CROSS UTILIZATION TRAINING (CUT) ACTIVITIES | 0 | 0 | 0 | 0 |
| O | PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 11 | 0 | 7 | 38 |
| P | PERFORMING TRAINING ACTIVITIES | 4 | 1 | 4 | 9 |
| Q | PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES | 3 | 2 | 3 | 8 |
| R | PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 3 | 2 | 2 | 6 |

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY AD 2A031A PERSONNEL

| TASKS | | PERCENT MEMBERS PERFORMING (N=115) |
|---|---|---|
| A0076 | Perform periodic inspections of test stations | 95 |
| A0022 | Clean test stations or test station equipment | 95 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 92 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 90 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 89 |
| A0099 | Remove or replace LRU pins or connectors | 89 |
| A0098 | Remove or replace LRU minor hardware | 86 |
| A0107 | Remove or replace test station minor hardware | 85 |
| A0084 | Prepare equipment for turn-in | 81 |
| L0685 | Change CAMS workcenter event narratives | 81 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 80 |
| A0103 | Remove or replace power supplies | 80 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 78 |
| A0108 | Remove or replace test station pins or connectors | 78 |
| A0021 | Clean shop facilities | 77 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 77 |
| A0129 | Solder components | 76 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 74 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 73 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 64 |
| L0689 | Conduct CAMS interface with base supply | 63 |
| L0683 | Analyze CAMS data | 59 |
| A0036 | Interpret system diagrams or schematics | 59 |
| A0109 | Remove or replace test station power supply components | 58 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 56 |
| L0686 | Change equipment maintenance schedules in CAMS | 56 |
| A0029 | Fabricate or rebuild cables | 56 |
| L0696 | Defer equipment maintenance records in CAMS | 55 |
| A0030 | Identify calibration requirements | 51 |
| A0094 | Remove or replace circuit components | 50 |
| A0071 | Pack or unpack LRUs for storage, shipment, or climatic conditions | 50 |
| L0684 | Change CAMS performing workcenter codes | 48 |
| L0688 | Conduct CAMS delayed discrepancies inquiries prior to, during, or after scheduling maintenance | 48 |
| A0039 | Lubricate shop equipment | 48 |
| A0081 | Perform safety wiring | 46 |
| L0700 | Initiate equipment maintenance discrepancies in CAMS | 45 |

* Average Number of Tasks Performed – 99

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY AD 2A051A PERSONNEL

| TASKS | | PERCENT MEMBERS PERFORMING (N=185) |
|---|---|---|
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 91 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 89 |
| L0685 | Change CAMS workcenter event narratives | 88 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 87 |
| A0022 | Clean test stations or test station equipment | 86 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 86 |
| A0076 | Perform periodic inspections of test stations | 86 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 84 |
| A0108 | Remove or replace test station pins or connectors | 84 |
| A0098 | Remove or replace LRU minor hardware | 83 |
| A0099 | Remove or replace LRU pins or connectors | 82 |
| A0021 | Clean shop facilities | 81 |
| A0107 | Remove or replace test station minor hardware | 81 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 81 |
| A0103 | Remove or replace power supplies | 81 |
| L0696 | Defer equipment maintenance records in CAMS | 76 |
| A0109 | Remove or replace test station power supply components | 76 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 75 |
| A0084 | Prepare equipment for turn-in | 75 |
| L0689 | Conduct CAMS interface with base supply | 72 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 72 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 72 |
| A0129 | Solder components | 71 |
| A0029 | Fabricate or rebuild cables | 71 |
| L0684 | Change CAMS performing workcenter codes | 68 |
| P0866 | Conduct on-the-job training (OJT) | 63 |
| L0683 | Analyze CAMS data | 62 |
| A0071 | Pack or unpack LRUs for storage, shipment, or climatic conditions | 62 |
| L0694 | Correct CAMS job standard narratives | 62 |
| A0030 | Identify calibration requirements | 62 |
| L0693 | Correct CAMS errors noted during daily verification process | 61 |
| A0036 | Interpret system diagrams or schematics | 60 |
| L0702 | Input supply data in CAMS | 58 |
| A0081 | Perform safety wiring | 58 |
| A0039 | Lubricate shop equipment | 58 |
| P0878 | Maintain training records or files | 57 |

* Average Number of Tasks Performed - 175

TABLE 10

TASKS WHICH BEST DIFFERENTIATE BETWEEN
AD DAFSCs 2A031A AND 2A051A PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | | ACTIVE DAFSC 2A031A (N=115) | ACTIVE DAFSC 2A051A (N=185) | DIFF |
|---|---|---|---|---|
| O0824 | Counsel subordinates concerning personal matters | 3.48 | 56.22 | -52.74 |
| O0823 | Conduct supervisory performance feedback sessions | .87 | 51.89 | -51.02 |
| P0866 | Conduct on-the-job training (OJT) | 13.04 | 63.24 | -50.20 |
| P0867 | Counsel trainees on training progress | 5.22 | 54.05 | -48.84 |
| P0875 | Evaluate progress of trainees | 2.61 | 51.35 | -48.74 |
| O0826 | Determine or establish work assignments or priorities | 6.09 | 54.05 | -47.97 |
| O0847 | Inspect personnel for compliance with military standards | 3.48 | 49.19 | -45.71 |
| O0861 | Write or indorse military performance reports | .00 | 44.86 | -44.86 |
| O0842 | Evaluate personnel for compliance with performance standards | .87 | 42.70 | -41.83 |
| O0848 | Interpret policies, directives, or procedures for subordinates | 1.74 | 43.24 | -41.50 |
| O0857 | Write recommendations for awards or decorations | .00 | 41.08 | -41.08 |
| O0820 | Conduct self-inspections or self-assessments | 3.48 | 43.24 | -39.76 |
| O0837 | Establish performance standards for subordinates | 1.74 | 38.92 | -37.18 |
| P0878 | Maintain training records or files | 20.00 | 56.76 | -36.76 |
| O0845 | Initiate actions required due to substandard performance of personnel | .87 | 35.68 | -34.81 |
| O0843 | Evaluate personnel for promotion, demotion, reclassification, or special awards | .00 | 33.51 | -33.51 |
| P0868 | Determine training requirements | 2.61 | 34.05 | -31.45 |
| L0702 | Input supply data in CAMS | 27.83 | 57.84 | -30.01 |
| Q0891 | Inventory classified materials or documents | 26.09 | 55.68 | -29.59 |
| O0831 | Develop or establish work methods or procedures | 3.48 | 32.43 | -28.95 |
| P0863 | Brief personnel concerning training programs or matters | .87 | 28.11 | -27.24 |
| O0832 | Develop or establish work schedules | 1.74 | 28.65 | -26.91 |
| A0015 | Align test station power supplies | 24.35 | 50.81 | -26.46 |

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY AD 2A071A PERSONNEL

| TASKS | | PERCENT MEMBERS PERFORMING (N=72) |
|---|---|---|
| O0842 | Evaluate personnel for compliance with performance standards | 89 |
| O0847 | Inspect personnel for compliance with military standards | 89 |
| O0857 | Write recommendations for awards or decorations | 88 |
| O0824 | Counsel subordinates concerning personal matters | 88 |
| O0861 | Write or indorse military performance reports | 86 |
| O0848 | Interpret policies, directives, or procedures for subordinates | 86 |
| O0823 | Conduct supervisory performance feedback sessions | 85 |
| O0845 | Initiate actions required due to substandard performance of personnel | 85 |
| O0820 | Conduct self-inspections or self-assessments | 81 |
| O0826 | Determine or establish work assignments or priorities | 78 |
| O0843 | Evaluate personnel for promotion, demotion, reclassification, or special awards | 78 |
| O0841 | Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace | 74 |
| O0840 | Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) program | 74 |
| O0837 | Establish performance standards for subordinates | 72 |
| O0819 | Conduct safety inspections of equipment or facilities | 71 |
| O0832 | Develop or establish work schedules | 71 |
| O0822 | Conduct supervisory orientations for newly assigned personnel | 71 |
| O0816 | Assign personnel to work areas or duty positions | 69 |
| O0844 | Implement safety or security programs | 69 |
| O0854 | Schedule personnel for temporary duty (TDY) assignments, leaves, or passes | 68 |
| P0878 | Maintain training records or files | 68 |
| R0904 | Identify and report equipment or supply problems | 67 |
| P0867 | Counsel trainees on training progress | 67 |
| P0868 | Determine training requirements | 67 |
| O0831 | Develop or establish work methods or procedures | 67 |
| O0818 | Conduct general meetings, such as staff meetings, briefings, conferences, or workshops | 65 |
| R0903 | Evaluate serviceability of equipment, tools, parts, or supplies | 65 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 64 |
| O0839 | Evaluate inspection report findings or inspection procedures | 64 |
| Q0891 | Inventory classified materials or documents | 63 |
| O0825 | Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace | 61 |
| O0858 | Write replies to inspection reports | 61 |
| R0905 | Initiate requisitions for equipment, tools, parts, or supplies | 61 |
| P0875 | Evaluate progress of trainees | 61 |
| Q0883 | Complete accident or incident reports | 61 |
| L0683 | Analyze CAMS data | 60 |
| P0863 | Brief personnel concerning training programs or matters | 60 |

* Average Number of Tasks Performed - 122

TABLE 12

TASKS WHICH BEST DIFFERENTIATE BETWEEN
AD DAFSCs 2A051A AND 2A071A PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | | ACTIVE DAFSC 2A051A (N=185) | ACTIVE DAFSC 2A071A (N=72) | DIFF |
|---|---|---|---|---|
| A0072 | Perform corrosion control on test stations, test equipment | 86.49 | 33.33 | 53.156 |
| A0022 | Clean test stations or test station equipment | 81.08 | 33.33 | 52.56 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mockups | 85.95 | 31.94 | 49.14 |
| A0099 | Remove or replace LRU pins or connectors | 82.16 | 33.33 | 48.83 |
| A0076 | Perform periodic inspections of test stations | 85.95 | 37.50 | 48.45 |
| A0108 | Remove or replace test station pins or connectors | 84.32 | 36.11 | 48.21 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 83.78 | 36.11 | 47.67 |
| A0098 | Remove or replace LRU minor hardware | 83.24 | 37.50 | 45.74 |
| A0021 | Clean shop facilities | 81.08 | 36.11 | 44.97 |
| A0107 | Remove or replace test station minor hardware | 80.54 | 36.11 | 44.43 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 89.19 | 45.83 | 43.36 |
| A0103 | Remove or replace power supplies | 80.54 | 38.89 | 41.65 |
| O0854 | Schedule personnel for temporary duty (TDY) assignments, leaves, or passes | 12.97 | 68.06 | -55.08 |
| O0840 | Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) program | 21.08 | 73.61 | -52.53 |
| O0818 | Conduct general meetings, such as staff meetings, briefings, conferences, or workshops | 15.14 | 65.28 | -50.14 |
| O0839 | Evaluate inspection report findings or inspection procedures | 14.05 | 63.89 | -49.83 |
| O0822 | Conduct supervisory orientations for newly assigned personnel | 21.08 | 70.83 | -49.75 |
| O0816 | Assign personnel to work areas or duty positions | 20.00 | 69.44 | -49.44 |
| O0845 | Initiate actions required due to substandard performance of personnel | 35.68 | 84.72 | -49.05 |
| O0844 | Implement safety or security programs | 21.62 | 69.44 | -47.82 |
| O0841 | Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace | 25.95 | 73.61 | -47.67 |
| O0858 | Write replies to inspection reports | 14.05 | 61.11 | -47.06 |
| O0857 | Write recommendations for awards or decorations | 41.08 | 87.50 | -46.42 |
| O0842 | Evaluate personnel for compliance with performance standards | 42.70 | 88.89 | -46.19 |

## ANG DAFSC

Skill-Level Descriptions

The distribution of ANG skill level groups across the avionics test stations clusters and jobs is provided in Table 13. The ANG members are found 100 percent in the core F-15 Avionics Test Station Cluster. No ANG 5- or 7-skill level airman grouped with those in the Supervisor/Manager Job. Table 14 shows the relative time spent on the 20 duties. The technical duties and CAMS are where the time is spent across both skill levels (93 and 88 percent for 5- and 7-skill levels).

**DAFSC 2A051A** The 26 ANG 5-skill level members are shown in Table 13 to all be in the specialty F-15 Avionics Test Station Cluster. Ninety-three percent of their time is on technical activities and CAMS in duties A-L (Table 14.) Table 15 provides tasks performed by the most members. A fair number of Duty G tasks dealing with antenna test station work is done by more than 80 percent of these ANG 5-skill level airmen. These personnel average 242 tasks which is one-third more tasks than the AD 5-skill level perform mostly because the ANG are not as likely to specialize on any given test station.

**DAFSC 2A071A** There are 23 ANG 7-skill level members and they are also found in their entirety in the core F-15 Avionics Test Station Cluster. Table 16 provides representative tasks. The tasks are dissimilar to the 5-skill level tasks in that the most common test station for these 7-skill levels is the microwave test station. However, Table 17, which lists those tasks that best differentiate the ANG 7- from the ANG 5-skill levels, shows that the 7-skill levels distinguish themselves from the 5s by their greater likelihood to perform computer test station tasks. The ANG 7- skill level airmen average only two more tasks, 244, than the ANG 5-skill levels. However, it is notable that this 244 tasks is double that of the AD 7-skill level members which emphasizes the continuing technical component of the ANG members jobs as well as the diversity of test stations they work on.

TABLE 13

DISTRIBUTION OF ANG SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

| SPECIALTY JOBS | | ANG 2A0X1A (N=49) | ANG 2A051A (N=26) | ANG 2A071A (N=23) |
|---|---|---|---|---|
| I. | F-15 AVIONICS TEST STATION CLUSTER | 100 | 100 | 100 |
| II. | ENTRY-LEVEL CLUSTER | 0 | 0 | 0 |
| III. | SUPERVISOR/MANAGER JOB | 0 | 0 | 0 |
| IV. | INSTRUCTOR JOB | 0 | 0 | 0 |
| | NOT GROUPED | 0 | 0 | 0 |

TABLE 14

RELATIVE PERCENT TIME SPENT ON DUTIES BY ANG SKILL LEVEL DAFSC GROUPS

| DUTIES | | ANG 2A0X1A (N=49) | ANG 2A051A (N=26) | ANG 2A071A (N=23) |
|---|---|---|---|---|
| A | PERFORMING GENERAL AVIONICS MAINTENANCE ACTIVITIES | 22 | 20 | 22 |
| B | MAINTAINING MANUAL TEST SETS, MOCK-UPS, AND LRUS | 0 | 1 | 0 |
| C | MAINTAINING ELECTRONIC WARFARE TEST STATIONS AND LRUS | 0 | 0 | 0 |
| D | MAINTAINING F-15 COMPUTER TEST STATIONS AND LRUS | 10 | 9 | 12 |
| E | MAINTAINING F-15 DISPLAYS TEST STATIONS AND LRUS | 13 | 11 | 14 |
| F | MAINTAINING F-15 MICROWAVE TEST STATIONS AND LRUS | 6 | 6 | 7 |
| G | MAINTAINING F-15 ANTENNA A AND B TEST STATIONS AND LRUS | 9 | 12 | 6 |
| H | MAINTAINING F-15 COMMUNICATIONS, NAVIGATION, AND IDENTIFICATION (CNI) TEST STATIONS AND LRUS | 2 | 2 | 2 |
| I | MAINTAINING F-15 INDICATORS AND CONTROLS TEST STATIONS AND LRUS | 9 | 9 | 8 |
| J | MAINTAINING TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) INTERMEDIATE SUPPORT SYSTEM (TISS) AND LRUS | 14 | 17 | 10 |
| K | MAINTAINING MOBILE ELECTRONIC TEST SET AND LRUS | 0 | 0 | 0 |
| L | PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES | 6 | 6 | 6 |
| M | PERFORMING MOBILITY AND CONTIGENCY ACTIVITIES | 2 | 2 | 2 |
| N | PERFORMING GENERAL AIRCRAFT OR CROSS UTILIZATION TRAINING (CUT) ACTIVITIES | * | 0 | 0 |
| O | PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 2 | 1 | 3 |
| P | PERFORMING TRAINING ACTIVITIES | 1 | 1 | 2 |
| Q | PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES | 2 | 1 | 3 |
| R | PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 2 | 2 | 2 |

TABLE 15

REPRESENTATIVE TASKS PERFORMED BY ANG 2A051A PERSONNEL

| TASKS | | PERCENT MEMBERS PERFORMING (N=26) |
|---|---|---|
| A0076 | Perform periodic inspections of test stations | 100 |
| A0021 | Clean shop facilities | 100 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 96 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 96 |
| A0129 | Solder components | 96 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 96 |
| A0107 | Remove or replace test station minor hardware | 96 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 92 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 92 |
| A0022 | Clean test stations or test station equipment | 92 |
| A0099 | Remove or replace LRU pins or connectors | 92 |
| A0098 | Remove or replace LRU minor hardware | 88 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 88 |
| A0084 | Prepare equipment for turn-in | 88 |
| A0108 | Remove or replace test station pins or connectors | 88 |
| J0658 | Troubleshoot TISSs | 85 |
| A0094 | Remove or replace circuit components | 85 |
| G0494 | Operationally check radar low-voltage power supplies (LVPSs) (610s) | 85 |
| G0511 | Troubleshoot 610s | 85 |
| G0498 | Repair 610s | 85 |
| A0036 | Interpret system diagrams or schematics | 85 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 85 |
| L0685 | Change CAMS workcenter event narratives | 85 |
| G0509 | Troubleshoot 011/111s | 81 |
| G0496 | Repair 011/111s | 81 |
| J0620 | Performance test TISSs | 81 |
| G0510 | Troubleshoot 031s | 81 |
| G0497 | Repair 031s | 81 |
| J0618 | Perform internal self-tests of TISSs | 81 |
| J0617 | Diagnostic test TISSs | 81 |
| J0616 | Confidence test TISSs | 81 |
| G0514 | Troubleshoot antenna B test stations | 81 |
| G0512 | Troubleshoot antenna A test stations | 81 |
| G0507 | Service antenna B test station transmitter mounting fixtures (TMFs) | 81 |
| G0491 | Operationally check antenna B test stations | 81 |
| G0503 | Service antenna A test station hydraulic power supplies | 81 |
| A0103 | Remove or replace power supplies | 81 |
| G0488 | Confidence test antenna B test stations | 81 |
| A0081 | Perform safety wiring | 81 |

* Average Number of Tasks Performed - 242

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY ANG 2A071A PERSONNEL

| TASKS | | PERCENT MEMBERS PERFORMING (N=23) |
|---|---|---|
| A0073 | Perform electrostatic discharge (ESD) procedures | 100 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 100 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 100 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 100 |
| A0076 | Perform periodic inspections of test stations | 100 |
| A0107 | Remove or replace test station minor hardware | 100 |
| A0108 | Remove or replace test station pins or connectors | 100 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 100 |
| A0109 | Remove or replace test station power supply components | 100 |
| A0036 | Interpret system diagrams or schematics | 96 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 96 |
| A0084 | Prepare equipment for turn-in | 96 |
| L0685 | Change CAMS workcenter event narratives | 96 |
| A0098 | Remove or replace LRU minor hardware | 96 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 96 |
| A0099 | Remove or replace LRU pins or connectors | 96 |
| A0022 | Clean test stations or test station equipment | 96 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 96 |
| A0129 | Solder components | 87 |
| A0021 | Clean shop facilities | 87 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 83 |
| A0103 | Remove or replace power supplies | 83 |
| F0460 | Confidence test microwave test stations (MTSs) | 78 |
| F0466 | Program test radar data processors (081/082s) | 78 |
| F0472 | Repair 022s | 78 |
| D0348 | Program test pitch computers | 78 |
| D0352 | Program test roll/yaw computers | 78 |
| F0469 | Program test radio frequency oscillators (RFOs) | 78 |
| F0462 | Operationally check MTSs | 74 |
| D0347 | Program test navigation control indicators (NCIs) | 74 |
| E0402 | Program test air navigation multiple indicators (ANMIs) | 74 |
| F0475 | Repair 039s | 74 |
| F0464 | Program test analog radar target data processors (039s) | 74 |
| F0468 | Program test radar receivers (022s) | 74 |
| E0400 | Operationally check DTSs | 74 |
| F0482 | Troubleshoot 039s | 74 |
| R0907 | Maintain documentation on items requiring periodic inspections or calibrations | 74 |

* Average Number of Tasks Performed – 244

TABLE 17

TASKS WHICH BEST DIFFERENTIATE BETWEEN
ANG DAFSCs 2A051A AND 2A071A PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | | ANG DAFSC 2A051A (N=26) | ANG DAFSC 2A071A (N=23) | DIFF |
|---|---|---|---|---|
| J0652 | Troubleshoot AN/ALR-56 TEWS displays | 69.23 | 34.78 | 34.45 |
| A0136 | Troubleshoot ARC-164 UHF test sets | 42.31 | 8.70 | 33.61 |
| A0112 | Repair ARN-118 TACAN RTs | 46.15 | 13.04 | 33.11 |
| A0135 | Troubleshoot ARC-164 UHF RTs to SRUs | 53.85 | 21.74 | 32.11 |
| R0909 | Pick up, deliver, or store equipment, tools, parts, or supplies | 69.23 | 39.13 | 30.10 |
| J0649 | Troubleshoot AN/ALQ-135 band 1, 2, or 3 RF amplifiers | 76.92 | 47.83 | 29.10 |
| G0485 | Calibrate antenna B test stations | 76.92 | 47.83 | 29.10 |
| G0506 | Service antenna B test station flush and fill units | 76.92 | 47.83 | 29.10 |
| G0484 | Calibrate antenna A test stations | 76.92 | 47.83 | 29.10 |
| G0491 | Operationally check antenna B test stations | 80.77 | 52.17 | 28.60 |
| G0507 | Service antenna B test station transmitter mounting fixtures (TMFs) | 80.77 | 52.17 | 28.60 |
| A0006 | Align digital interface adapter (DIA) shop replaceable units (SRUs) | 15.38 | 56.52 | -41.14 |
| P0866 | Conduct on-the-job training (OJT) | 26.92 | 65.22 | -38.29 |
| A0056 | Operationally check IBs | 26.92 | 65.22 | -38.29 |
| A0085 | Program test IBs | 19.23 | 56.52 | -37.29 |
| A0086 | Program or reprogram MLVs or PLVs | 34.62 | 69.57 | -34.95 |
| D0353 | Program test signal data recorders (SDRs) | 26.92 | 60.87 | -33.95 |
| O0841 | Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace | 11.54 | 43.48 | -31.94 |
| O0822 | Conduct supervisory orientations for newly assigned personnel | 3.85 | 34.78 | -30.94 |
| D0378 | Troubleshoot ADCs | 34.62 | 65.22 | -30.60 |
| D0381 | Troubleshoot CTSs | 23.08 | 52.17 | -29.10 |
| D0338 | Program test electronic air inlet controllers (EAICs) | 46.15 | 73.91 | -27.76 |
| Q0886 | Establish or maintain automated technical order management system (ATOMS) accounts | 7.69 | 34.78 | -27.09 |

## AD/ANG DAFSC

The distinguishing tasks that members of the two service components accomplish are shown in Table 18 for the 5-skill level and in Table 19 for the 7-skill level. At both skill levels the AD members are much more likely than the ANG members to perform the management and supervisory activities of Duty O. Conversly at both skill levels, the ANG members are much more likely than AD members to perform technical activities.

TABLE 18

TASKS WHICH BEST DIFFERENTIATE BETWEEN
AD DAFSC 2A051A AND ANG DAFSC 2A051A PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | | AD DAFSC 2A051A (N=185) | ANG DAFSC 2A051A (N=26) | DIFF |
|---|---|---|---|---|
| O0823 | Conduct supervisory performance feedback sessions | 51.89 | .00 | 51.89 |
| O0824 | Counsel subordinates concerning personal matters | 56.22 | 7.69 | 48.52 |
| O0861 | Write or indorse military performance reports | 44.86 | .00 | 44.86 |
| O0848 | Interpret policies, directives, or procedures for subordinates | 43.24 | .00 | 43.24 |
| O0857 | Write recommendations for awards or decorations | 41.08 | .00 | 41.08 |
| O0837 | Establish performance standards for subordinates | 38.92 | .00 | 38.92 |
| O0842 | Evaluate personnel for compliance with performance standards | 42.70 | 3.85 | 38.86 |
| O0847 | Inspect personnel for compliance with military standards | 49.19 | 11.54 | 37.65 |
| P0866 | Conduct on-the-job training (OJT) | 63.24 | 26.92 | 36.32 |
| O0845 | Initiate actions required due to substandard performance of personnel | 35.68 | .00 | 35.68 |
| L0689 | Conduct CAMS interface with base supply | 72.43 | 38.46 | 33.97 |
| O0843 | Evaluate personnel for promotion, demotion, reclassification, or special awards | 33.51 | .00 | 33.51 |
| H0517 | Confidence test communication, navigation, and identification (CNI) test stations | 21.08 | 76.92 | -55.84 |
| H0519 | Operationally check air-to-air interrogators (AAIs) | 22.16 | 73.08 | -50.91 |
| H0526 | Troubleshoot CNI test stations | 22.16 | 73.08 | -50.91 |
| J0632 | Program test AN/ALR-56A power supplies | 14.59 | 65.38 | -50.79 |
| H0521 | Operationally check CNI test stations | 22.70 | 73.08 | -50.37 |
| I0527 | Confidence test indicators and controls (I&C) test stations | 30.81 | 80.77 | -49.96 |
| G0487 | Confidence test antenna A test stations | 31.89 | 80.77 | -48.88 |
| G0491 | Operationally check antenna B test stations | 31.89 | 80.77 | -48.88 |
| G0488 | Confidence test antenna B test stations | 32.43 | 80.77 | -48.34 |
| J0641 | Repair AN/ALR-56A low-band receiver processors | 13.51 | 61.54 | -48.02 |
| J0642 | Repair AN/ALR-56A power supplies | 13.51 | 61.54 | -48.02 |
| J0653 | Troubleshoot AN/ALR-56A low-band receiver processors | 14.59 | 61.54 | -46.94 |

TABLE 19

TASKS WHICH BEST DIFFERENTIATE BETWEEN
AD DAFSC 2A071A AND ANG DAFSC 2A071A PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | | AD DAFSC 2A071A (N=72) | ANG DAFSC 2A071A (N=23) | DIFF |
|---|---|---|---|---|
| O0861 | Write or indorse military performance reports | 86.11 | 4.35 | 81.76 |
| O0824 | Counsel subordinates concerning personal matters | 87.50 | 13.04 | 74.46 |
| O0842 | Evaluate personnel for compliance with performance standards | 88.89 | 17.39 | 71.50 |
| O0823 | Conduct supervisory performance feedback sessions | 84.72 | 17.39 | 67.33 |
| O0857 | Write recommendations for awards or decorations | 87.50 | 21.74 | 65.76 |
| O0837 | Establish performance standards for subordinates | 72.22 | 8.70 | 63.53 |
| O0845 | Initiate actions required due to substandard performance of personnel | 84.72 | 21.74 | 62.98 |
| O0843 | Evaluate personnel for promotion, demotion, reclassification, or special awards | 77.78 | 17.39 | 60.39 |
| O0848 | Interpret policies, directives, or procedures for subordinates | 86.11 | 26.09 | 60.02 |
| O0854 | Schedule personnel for temporary duty (TDY) assignments, leaves, or passes | 68.06 | 8.70 | 59.36 |
| O0847 | Inspect personnel for compliance with military standards | 88.89 | 34.78 | 54.11 |
| Q0883 | Complete accident or incident reports | 61.11 | 8.70 | 52.42 |
| O0816 | Assign personnel to work areas or duty positions | 69.44 | 17.39 | 52.05 |
| F0469 | Program test radio frequency oscillators (RFOs) | 11.11 | 78.26 | -67.15 |
| A0109 | Remove or replace test station power supply components | 34.72 | 100.00 | -65.28 |
| F0472 | Repair 022s | 13.89 | 78.26 | -64.37 |
| A0107 | Remove or replace test station minor hardware | 36.11 | 100.00 | -63.89 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 36.11 | 100.00 | -63.89 |
| A0108 | Remove or replace test station pins or connectors | 36.11 | 100.00 | -63.89 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 31.94 | 95.65 | -63.71 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 31.94 | 95.65 | -63.71 |
| F0464 | Program test analog radar target data processors (039s) | 11.11 | 73.91 | -62.80 |
| A0076 | Perform periodic inspections of test stations | 37.50 | 100.00 | -62.50 |
| A0022 | Clean test stations or test station equipment | 33.33 | 95.65 | -62.32 |
| A0099 | Remove or replace LRU pins or connectors | 33.33 | 95.65 | -62.32 |

## TRAINING ANALYSIS

Occupational survey data are one of many sources of information which can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. Factors which may be used in evaluating training include: the overall description of the work being performed by first-enlistment personnel and their overall distribution across career ladder jobs and percentages of first-enlistment (1-48 months TAFMS) members performing specific tasks. Also, when available, TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section) provide useful field input.

### First-Enlistment Personnel

In this study, there are 117 AD members in their first-enlistment (1-48 months TAFMS), representing 31 percent of the 372 AD members in the survey sample. Figure 2 reflects the distribution of first-enlistment personnel across specialty jobs within the career ladder. First-enlistment personnel are primarily employed in the F-15 Test Station Cluster.

Table 20 displays the relative percent of time spent on duties by first-enlistment personnel. Most of their duty time is spent on general avionics, TEWS/TISS, and antenna test station activities. Reviewing the table, first-enlistment personnel spend 94 percent of their time performing the technical tasks and CAMS activities of Duties A-L.

Table 21 lists representative tasks performed by first-enlistment personnel. Those tasks performed by 40 percent or more of these airmen are general avionics and CAMS tasks. No test station specific tasks have a high percentage of first-enlistment airmen because they are divided individually to one or another of the various test stations.

Table 22 reflects the equipment and tools used by at least 20 percent of the AD first-enlistment respondents. This table shows a combination of meters, counters, and analyzers.

# DISTRIBUTION OF 2A0X1A FIRST-ENLISTMENT PERSONNEL ACROSS SPECIALTY JOBS (N = 117)

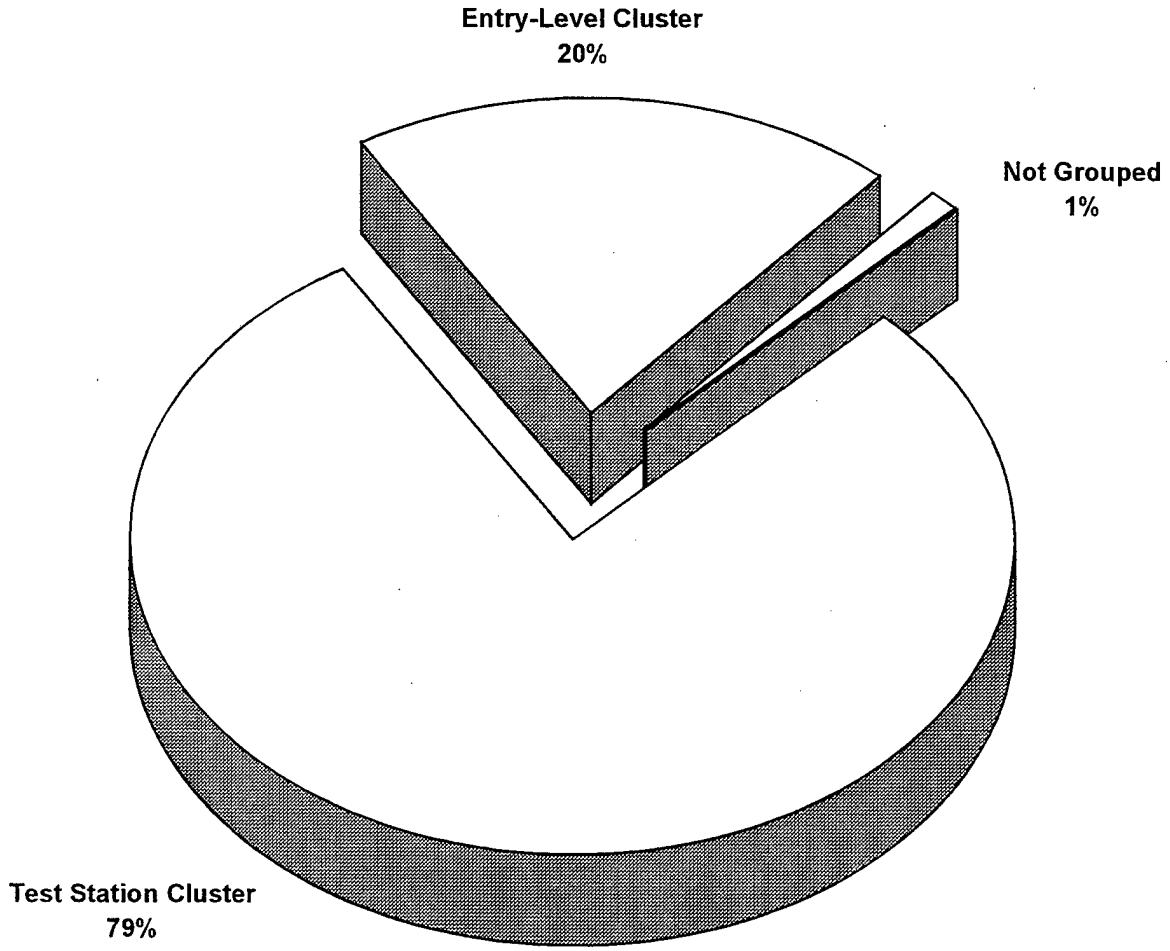


FIGURE 2

TABLE 20

RELATIVE PERCENT TIME SPENT ON DUTIES BY
FIRST-ENLISTMENT PERSONNEL
(N=117)

| DUTIES | | PERCENT TIME SPENT |
|---|---|---|
| A | PERFORMING GENERAL AVIONICS MAINTENANCE ACTIVITIES | 31 |
| B | MAINTAINING MANUAL TEST SETS, MOCK-UPS, AND ASSIGNED LRUS | 1 |
| C | MAINTAINING ELECTRONIC WARFARE TEST STATIONS AND ASSIGNED LRUS | 0 |
| D | MAINTAINING F-15 COMPUTER TEST STATIONS AND ASSIGNED LRUS | 5 |
| E | MAINTAINING F-15 DISPLAYS TEST STATIONS AND ASSIGNED LRUS | 8 |
| F | MAINTAINING F-15 MICROWAVE TEST STATIONS AND ASSIGNED LRUS | 4 |
| G | MAINTAINING F-15 ANTENNA A AND B TEST STATIONS AND ASSIGNED LRUS | 12 |
| H | MAINTAINING F-15 COMMUNICATION, NAVIGATION, AND IDENTIFICATION (CNI) TEST STATIONS AND ASSIGNED LRUS | 1 |
| I | MAINTAINING F-15 INDICATORS AND CONTROLS TEST STATIONS AND ASSIGNED LRUS | 3 |
| J | MAINTAINING TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) INTERMEDIATE SUPPORT SYSTEM (TISS) AND ASSIGNED LRUS | 13 |
| K | MAINTAINING MOBILE ELECTRONIC TEST SET AND ASSIGNED LRUS | 4 |
| L | PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES | 12 |
| M | PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 2 |
| N | PERFORMING GENERAL AIRCRAFT OR CROSS UTILIZATION TRAINING (CUT) ACTIVITIES | 0 |
| O | PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 0 |
| P | PERFORMING TRAINING ACTIVITIES | 0 |
| Q | PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES | 2 |
| R | PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 2 |

TABLE 21

REPRESENTATIVE TASKS PERFORMED BY AFSC 2A0X1A
FIRST-ENLISTMENT PERSONNEL
(N=117)

| TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| A0076 | Perform periodic inspections of test stations | 96 |
| A0022 | Clean test stations or test station equipment | 96 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 92 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 90 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 90 |
| A0099 | Remove or replace LRU pins or connectors | 90 |
| A0098 | Remove or replace LRU minor hardware | 87 |
| A0107 | Remove or replace test station minor hardware | 86 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 82 |
| L0685 | Change CAMS workcenter event narratives | 82 |
| A0084 | Prepare equipment for turn-in | 81 |
| A0103 | Remove or replace power supplies | 81 |
| A0021 | Clean shop facilities | 79 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 79 |
| A0108 | Remove or replace test station pins or connectors | 79 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 77 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 76 |
| A0129 | Solder components | 76 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 74 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 65 |
| L0689 | Conduct CAMS interface with base supply | 62 |
| A0036 | Interpret system diagrams or schematics | 62 |
| L0683 | Analyze CAMS data | 60 |
| L0696 | Defer equipment maintenance records in CAMS | 57 |
| L0686 | Change equipment maintenance schedules in CAMS | 57 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 56 |
| A0094 | Remove or replace circuit components | 49 |
| A0081 | Perform safety wiring | 47 |
| L0703 | Load LRU part numbers or serial numbers in CAMS | 40 |
| G0510 | Troubleshoot 031s | 34 |
| G0497 | Repair 031s | 34 |
| G0495 | Operationally check radar transmitters (011/111s) | 34 |
| G0511 | Troubleshoot 610s | 34 |
| G0498 | Repair 610s | 34 |
| G0493 | Operationally check radar antennas (031s) | 33 |
| G0509 | Troubleshoot 011/111s | 33 |

* Average Number of Tasks Performed -100

TABLE 22

EQUIPMENT/TOOLS USED BY
FIRST-ENLISTMENT AFSC 2A0X1A PERSONNEL

| EQUIPMENT | 1ST ENL (N=117) |
|---|---|
| Digital multimeter | 95 |
| Oscilloscopes | 88 |
| Frequency counters | 83 |
| Spectrum analyzers | 77 |
| Power supplies | 74 |
| Signal generators | 71 |
| Power radio frequency (RF) meters | 63 |
| Pulse generators | 62 |
| Cable repair kits | 56 |
| Analog multimeters | 49 |
| Power output meters | 45 |
| Timer counters | 43 |
| Phasemeters | 33 |
| Digital logic probes | 32 |
| Noise oscillators | 31 |
| Vector voltmeters | 31 |
| Calibration standard sets | 30 |
| Phase angle meters | 30 |
| Photometers | 29 |
| Sweep oscillators | 27 |
| Current probe analyzers | 26 |
| Power meters, other than output or RF | 26 |
| Time domain reflectometers | 24 |
| Pneumatic pressure test sets, TTU-205 | 24 |
| Theodolites | 22 |

## Task Difficulty (TD) Data

TD data can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings are based on the judgments of senior career ladder NCOs working at operational units in the field. They are collected to provide training personnel with a rank-ordering of those tasks in the JI considered difficult or time consuming for first-enlistment personnel training (see Table 23 for the top-rated tasks). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on TD, accompanied by moderate to low percentages performing, are not very good candidates for 3- award course training, and may be more appropriately planned for OJT programs within the career ladder. However, any decision must be weighed against percentages of personnel performing the tasks, command concerns, safety issues and criticality of the tasks.

Table 23 presents tasks with the highest TD ratings and gives the percent of AD members performing for AFSC 2A0X1A first-job (1-24 months) and first-enlistment (1-48 months) airmen as well as AD airmen at the 3-, 5- and 7-skill levels. Some of the tasks selected by TD raters as the most difficult are high level management activities and have low numbers of individuals performing, but some are technical and have 20 percent or more of the first-enlistment personnel performing. Although some of these types of tasks might well be inappropriate for inclusion in a resident curriculum and be more appropriately taught as OJT items, those done by airmen in their first job (1-24 months TAFMS) should all be considered for 3-award course inclusion.

Various lists of tasks, accompanied by TD ratings are contained in the TRAINING EXTRACT package and should be reviewed in detail by training school personnel. (For a more detailed explanation of TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.)

TABLE 23

TASKS RATED HIGHEST IN TASK DIFFICULTY

| TASKS | | TASK DIFF | PERCENT MEMBERS PERFORMING 1ST JOB (N=70) | 1ST ENL (N=117) | 3-SKL LVL (N=115) | 5-SKL LVL (N=185) | 7-SKL LVL (N=72) |
|---|---|---|---|---|---|---|---|
| G0501 | Repair ARTS coolant processing units | 8.23 | 7 | 10 | 10 | 18 | 7 |
| F0477 | Troubleshoot MTSs | 8.08 | 19 | 24 | 23 | 43 | 18 |
| J0658 | Troubleshoot TISSs | 7.87 | 27 | 31 | 30 | 39 | 24 |
| A0141 | Troubleshoot circuit cards | 7.75 | 34 | 36 | 37 | 39 | 18 |
| F0463 | Perform microwave harmonization procedures | 7.68 | 16 | 21 | 21 | 40 | 17 |
| G0515 | Troubleshoot ARTS coolant processing units | 7.63 | 9 | 12 | 12 | 16 | 7 |
| E0459 | Troubleshoot wide-field-of-view HUDs | 7.55 | 10 | 14 | 15 | 25 | 11 |
| E0439 | Repair wide-field-of-view HUDs | 7.55 | 11 | 13 | 14 | 25 | 11 |
| P0881 | Write training reports | 7.50 | 0 | 1 | 0 | 4 | 17 |
| A0036 | Interpret system diagrams or schematics | 7.39 | 59 | 62 | 59 | 60 | 35 |
| A0151 | Trouybleshoot ITAs | 7.33 | 24 | 25 | 24 | 32 | 14 |
| E0399 | Level heads-up display (HUD) tables using theodolites and alignment fixtures | 7.32 | 16 | 21 | 18 | 32 | 13 |
| A0142 | Troubleshoot computer terminals | 7.30 | 6 | 9 | 10 | 11 | 11 |
| A0028 | Fabricate test equipment, simulators, or mock-ups | 7.26 | 6 | 9 | 8 | 21 | 6 |
| G0497 | Repair 031s | 7.23 | 30 | 34 | 35 | 41 | 21 |
| M0720 | Determine cost factors for support agreements | 7.21 | 0 | 0 | 0 | 1 | 8 |
| E0446 | Troubleshoot DTSs | 7.20 | 19 | 22 | 22 | 42 | 15 |
| A0143 | Troubleshoot data link pod test sets | 7.16 | 1 | 1 | 1 | 14 | 4 |
| O0834 | Draft host-tenant or interservice agreements | 7.11 | 0 | 0 | 0 | 1 | 8 |
| M0722 | Develop contingency exercise mobility (CEM) orders | 7.09 | 0 | 0 | 0 | 0 | 1 |

* Mean TD Rating is 5.00, and Standard Deviation is 1.00 (High TD = 6.00)

## Specialty Training Standard (STS)

A comprehensive review of STS 2A0X1A, dated April 1997, compared STS items to survey data (based on assistance from training course SMEs in matching JI tasks to STS elements.) STS elements containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities were not examined. Task knowledge and performance elements of the STS were compared against the standard set forth in AETCI 36-2601 and AFI 36-2623 (i.e., include tasks performed or knowledge required by 20 percent or more of the personnel in a skill level (criterion group) of the AFS.)

Overall, the STS provides very comprehensive coverage of the work performed by personnel in this career ladder, with survey data supporting almost all of the essential elements. Some elements with no performance coding at the 3-skill level course, have 20 percent of personnel performing matched tasks and should be reviewed by training personnel for possible recoding. Table 24 provides several examples of such entries. The "Operational Check" entry is one of 14 that are not performance coded but which have 20 percent or more of the 3-skill level members performing. Similarly, the " Troubleshoot/repair (or Isolate/repair)" entry is one of 25 that are not performance coded but which have 20 percent or more of the 3-skill level members performing.

Tasks that were not referenced to any element of the STS are listed at the end of the STS computer listing provided in a separate training extract. Tasks for two duty areas were not matched to the STS entries and make up the bulk of the unmatched tasks. Duty B, manual test sets, mock-ups, and LRUs, is done by almost no one, and Duty C, electronic warfare, appears to be done by no one at all. For the other technical duty areas, almost none of the tasks, except those in the general avionics maintenance Duty A, have a high or even moderate percentage of members performing. These tasks were reviewed to determine if there were any tasks concentrated around any particular function or job. Some were overlooked and should have been placed but most with higher to moderate TD scores are too general in scope and did not fit in any specific position in the STS. There are a few CAMS tasks with large numbers of 3-skill level members performing and these should be reviewed to see if they belong in the 3-award course perhaps with a performance code. Some technical tasks that are performed by 20 percent or more respondents of the STS target groups, but which were not referenced to any STS element, are displayed in Table 25 and demonstrate the above explanation. None-the-less, training personnel and SMEs should review these not-referenced tasks to determine if any represent a true training need and therefore merit inclusion in the STS.

TABLE 24

EXAMPLES OF TECHNICAL TASKS PERFORMED BY AFSC 2A0X1A GROUP MEMBERS
SUGGESTED FOR PROFICIENCY CODE REVIEW TO PERFORMANCE CODING
(PERCENT MEMBERS PERFORMING)

| TASKS | | PERCENT MEMBERS PERFORMING 3-SKL LVL (N=115) | 5-SKL LVL (N=185) | 7-SKL LVL (N=72) | TASK DIFF |
|---|---|---|---|---|---|
| **A2.9.2** | **Safety Wire** - | | | | |
| A0081 | Perform safety wiring | 46 | 58 | 24 | 4.31 |
| **A3.6.2.2** | **Service Coolant** b | | | | |
| G0504 | Service antenna B test station coolant conditioning units with coolant | 29 | 35 | 14 | 5.01 |
| **A3.6.3** | **Service hydraulic Power Supply** - - | | | | |
| G0503 | Service antenna A test station hydraulic power supplies | 30 | 34 | 17 | 5.11 |
| **A3.8.1.2** | **Operationally check (Low Voltage Power Supply)** - - | | | | |
| G0494 | Operationally check radar low-voltage power supplies (610) | 34 | 39 | 21 | 6.38 |
| **A3.8.1.3** | **Troubleshoot/repair (Low-voltage Power Supply)** - - | | | | |
| G0511 | Troubleshoot 610s | 35 | 41 | 22 | 4.60 |
| G0498 | Repair 610s | 35 | 41 | 22 | 4.12 |

** Average TD Rating is 5.00 and standard deviation is 1.00

TABLE 25

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE GROUP MEMBERS AND NOT REFERENCED TO THE STS

| TASKS | | PERCENT MEMBERS PERFORMING 3-SKL LVL (N=115) | 5-SKL LVL (N=185) | 7-SKL LVL (N=72) | TASK DIFF |
|---|---|---|---|---|---|
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 89 | 86 | 33 | 3.46 |
| A0099 | Remove or replace LRU pins or connectors | 89 | 82 | 33 | 5.78 |
| A0107 | Remove or replace test station minor hardware | 85 | 81 | 36 | 2.94 |
| A0084 | Prepare equipment for turn in | 81 | 75 | 39 | 4.36 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 77 | 84 | 36 | 4.86 |
| A0029 | Fabricate or rebuild cable | 56 | 71 | 35 | 6.01 |
| A0018 | Calibrate test equipment | 30 | 44 | 28 | 6.15 |
| A0015 | Align test station power supplies | 24 | 51 | 22 | 5.01 |
| L0689 | Conduct CAMS interface with base supply | 63 | 72 | 49 | 4.39 |
| L0683 | Analyze CAMS data | 59 | 62 | 60 | 4.72 |
| L0686 | Change equipment maintenance schedules in CAMS | 59 | 62 | 60 | 4.72 |
| L0696 | Defer equipment maintenance records in CAMS | 54 | 76 | 43 | 4.36 |
| L0694 | Correct CAMS job standard narratives | 42 | 62 | 29 | 4.72 |
| L0695 | Correct CAMS work unit codes | 42 | 56 | 31 | 4.72 |

** Average TD Rating is 5.00, and Standard Deviation is 1.00

## JOB SATISFACTION ANALYSIS

### AD JOB SATISFACTION

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

Table 26 presents job satisfaction data for AFSC 2A0X1A TAFMS AD groups, together with TAFMS data for a comparative sample of Maintenance career ladders surveyed in 1998. All 2A0X1A TAFMS groups rated job interest, utilization of talents, utilization of training, and sense of accomplishment gained from work similar to or somewhat better than the comparative 1998 sample. However, the first-enlistment airmen in the F-15 Avionics Test Station career field are indicating much lower reenlistment intentions, 37 percent versus 47 percent, even though job interest and sense of accomplishment are slightly higher. If this first-term percentage of 37 were to hold, this would have significant implications for recruiting and training requirements.

An indication of how job satisfaction perceptions have changed over time for the 2A0X1A career field is provided in Table 27. The most notable differences are in reenlistment intentions which have dropped for all three tenure groups.

Table 28, provides a total sample review of the job satisfaction ratings for the specialty jobs and clusters identified in this survey against which to compare the AD Table 29 and the ANG Table 30. Table 28 shows high satisfaction ratings for instructors and lower ratings for the other specialty jobs. It should be noted that the members of the Entry-Level cluster find their work to be less interesting than do those members of the other specialty jobs, and this might play some role in their lower reenlistment intentions. Also the 73 percent reenlistment intentions of the core of the career field, the Avionics Test Station Cluster in Table 28 is not very acceptable because Table 29 shows that it is the 49 ANG members who make this percentage so high.

### ANG JOB SATISFACTION

Job satisfaction indicators for ANG are provided in Tables 30. Note groups with fewer than five members are not reported. In general, these indicators show an overall high satisfaction. Reenlistment intentions are not reported for the ANG because they almost all leave by retirement.

TABLE 26

COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS AD GROUPS TO OTHER MAINTENANCE AFSs
(PERCENT MEMBERS RESPONDING)

| | 1-48 MOS TAFMS | | 49-96 MOS TAFMS | | 97+ MOS TAFMS | |
|---|---|---|---|---|---|---|
| | 1999 2A0X1A (N=117) | COMP SAMPLE* (N=5173) | 1999 2A0X1A (N=84) | COMP SAMPLE* (N=3300) | 1999 2A0X1A (N=171) | COMP SAMPLE* (N=9078) |
| EXPRESSED JOB INTEREST: | | | | | | |
| INTERESTING | 79 | 67 | 67 | 67 | 75 | 73 |
| SO-SO | 11 | 19 | 20 | 19 | 14 | 17 |
| DULL | 10 | 14 | 13 | 14 | 11 | 10 |
| PERCEIVED UTILIZATION OF TALENTS: | | | | | | |
| FAIRLY WELL TO PERFECTLY | 85 | 75 | 85 | 77 | 86 | 82 |
| LITTLE OR NOT AT ALL | 15 | 25 | 15 | 23 | 14 | 18 |
| PERCEIVED UTILIZATION OF TRAINING: | | | | | | |
| FAIRLY WELL TO PERFECTLY | 84 | 84 | 87 | 78 | 80 | 76 |
| LITTLE OR NOT AT ALL | 16 | 16 | 13 | 22 | 20 | 24 |
| SENSE OF ACCOMPLISHMENT GAINED FROM WORK: | | | | | | |
| SATISFIED | 76 | 66 | 73 | 65 | 71 | 69 |
| NEUTRAL | 13 | 17 | 14 | 14 | 8 | 12 |
| DISSATISFIED | 11 | 17 | 13 | 21 | 21 | 19 |
| REENLISTMENT INTENTIONS: | | | | | | |
| YES, OR PROBABLY YES | 37 | 47 | 65 | 61 | 63 | 69 |
| NO, OR PROBABLY NO | 63 | 51 | 35 | 38 | 11 | 10 |
| PLAN TO RETIRE | 0 | 2 | 0 | 1 | 26 | 21 |

Comparative sample of Maintenance career ladders surveyed in 1998 includes the 2A1X2, 2A1X3, 2A1X4, 2A4X1, 2A4X2, 2A4X3, 2A5X1A-H,J-L, 2A6X4, 2A7X2, 2E0X1, 2E2X1, 2E3X1, 2E6X3, 2M0X1A/B, 2R0X1, 2R1X1, 2T3X1, 2T3X2A, 2T3X2B, 2T3X4 and 2T3X5 AFSCs.

TABLE 27

COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS AD GROUPS TO THE 1996 SAMPLE
(PERCENT MEMBERS RESPONDING)

| | 1-48 MOS TAFMS | | 49-96 MOS TAFMS | | 97+ MOS TAFMS | |
|---|---|---|---|---|---|---|
| | 1999 2A0X1A (N=117) | 1996 2A0X1A (N=355) | 1999 2A0X1A (N=84) | 1996 2A0X1A (N=179) | 1999 2A0X1A (N=171) | 1996 2A0X1A (N=451) |
| EXPRESSED JOB INTEREST: | | | | | | |
| INTERESTING | 79 | 63 | 67 | 69 | 75 | 75 |
| SO-SO | 11 | 21 | 20 | 20 | 14 | 16 |
| DULL | 10 | 16 | 13 | 11 | 11 | 9 |
| PERCEIVED UTILIZATION OF TALENTS: | | | | | | |
| FAIRLY WELL TO PERFECTLY | 85 | 77 | 85 | 83 | 86 | 87 |
| LITTLE OR NOT AT ALL | 15 | 23 | 15 | 17 | 14 | 13 |
| PERCEIVED UTILIZATION OF TRAINING: | | | | | | |
| FAIRLY WELL TO PERFECTLY | 84 | 87 | 87 | 84 | 80 | 80 |
| LITTLE OR NOT AT ALL | 16 | 13 | 13 | 16 | 20 | 20 |
| SENSE OF ACCOMPLISHMENT GAINED FROM WORK: | | | | | | |
| SATISFIED | 76 | 67 | 73 | 74 | 71 | 75 |
| NEUTRAL | 13 | 18 | 14 | 13 | 8 | 8 |
| DISSATISFIED | 11 | 15 | 13 | 13 | 21 | 17 |
| REENLISTMENT INTENTIONS: | | | | | | |
| YES, OR PROBABLY YES | 37 | 53 | 65 | 71 | 63 | 73 |
| NO, OR PROBABLY NO | 63 | 47 | 35 | 28 | 11 | 10 |
| PLAN TO RETIRE | 0 | 0 | 0 | 1 | 26 | 17 |

TABLE 28

COMPARISON OF JOB SATISFACTION INDICATORS BY SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

| | Avionics Tst Sta Cluster (ST 15) (N=313) | Entry-Level Cluster (ST 18) (N=31) | Supervisor/ Manager Job (ST 42) (N=45) | Instructor Job (ST 12) (N=5) |
|---|---|---|---|---|
| EXPRESSED JOB INTEREST: | | | | |
| INTERESTING | 75 | 65 | 87 | 100 |
| SO-SO | 14 | 23 | 9 | 0 |
| DULL | 11 | 12 | 4 | 0 |
| PERCEIVED UTILIZATION OF TALENTS: | | | | |
| FAIRLY WELL TO PERFECTLY | 86 | 84 | 89 | 80 |
| LITTLE OR NOT AT ALL | 14 | 16 | 11 | 20 |
| PERCEIVED UTILIZATION OF TRAINING: | | | | |
| FAIRLY WELL TO PERFECTLY | 86 | 81 | 73 | 100 |
| LITTLE OR NOT AT ALL | 14 | 19 | 27 | 0 |
| SENSE OF ACCOMPLISHMENT GAINED FROM WORK: | | | | |
| SATISFIED | 73 | 74 | 78 | 100 |
| NEUTRAL | 12 | 16 | 7 | 0 |
| DISSATISFIED | 15 | 10 | 16 | 0 |
| REENLISTMENT INTENTIONS: | | | | |
| YES, OR PROBABLY YES | 73 | 45 | 53 | 100 |
| NO, OR PROBABLY NO | 12 | 55 | 7 | 0 |
| WILL RETIRE | 15 | 0 | 40 | 0 |

TABLE 29

COMPARISON OF JOB SATISFACTION INDICATORS BY AD SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

| | Avionics Tst Sta Cluster (ST 15) (N=264) | Entry-Level Cluster (ST 18) (N=31) | Supervisor/ Manager Job (ST 42) (N=45) | Instructor Job (ST 12) (N=5) |
|---|---|---|---|---|
| EXPRESSED JOB INTEREST: | | | | |
| INTERESTING | 74 | 65 | 87 | 100 |
| SO-SO | 15 | 23 | 9 | 0 |
| DULL | 11 | 12 | 4 | 0 |
| PERCEIVED UTILIZATION OF TALENTS: | | | | |
| FAIRLY WELL TO PERFECTLY | 87 | 84 | 89 | 80 |
| LITTLE OR NOT AT ALL | 13 | 16 | 11 | 20 |
| PERCEIVED UTILIZATION OF TRAINING: | | | | |
| FAIRLY WELL TO PERFECTLY | 86 | 81 | 73 | 100 |
| LITTLE OR NOT AT ALL | 14 | 19 | 27 | 0 |
| SENSE OF ACCOMPLISHMENT GAINED FROM WORK: | | | | |
| SATISFIED | 72 | 74 | 78 | 100 |
| NEUTRAL | 12 | 16 | 7 | 0 |
| DISSATISFIED | 16 | 10 | 16 | 0 |
| REENLISTMENT INTENTIONS: | | | | |
| YES, OR PROBABLY YES | 57 | 45 | 53 | 100 |
| NO, OR PROBABLY NO | 37 | 55 | 7 | 0 |
| WILL RETIRE | 6 | 0 | 40 | 0 |

TABLE 30

COMPARISON OF JOB SATISFACTION INDICATORS BY ANG SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

| | Avionics Test Station Cluster (ST 15) (N=49) |
|---|---|
| EXPRESSED JOB INTEREST: | |
| INTERESTING | 84 |
| SO-SO | 12 |
| DULL | 4 |
| PERCEIVED UTILIZATION OF TALENTS: | |
| FAIRLY WELL TO PERFECTLY | 85 |
| LITTLE OR NOT AT ALL | 15 |
| PERCEIVED UTILIZATION OF TRAINING: | |
| FAIRLY WELL TO PERFECTLY | 89 |
| LITTLE OR NOT AT ALL | 11 |
| SENSE OF ACCOMPLISHMENT GAINED FROM WORK: | |
| SATISFIED | 80 |
| NEUTRAL | 10 |
| DISSATISFIED | 10 |

## IMPLICATIONS

This survey was initiated to provide current job and task data for use in evaluating the AFMAN 36-2108 *Specialty Description* and appropriate training documents.

Survey results clearly indicate that the present classification structure, as described in the latest specialty description, accurately portrays the jobs performed in this career ladder. Career ladder training documents appear, on the whole, to be well supported by survey data, but require further review to ensure appropriate proficiency coding. The career ladder progression is similar to other AFSCs; technical involvement at the lower skill levels with the progression to more management at the 7-skill level for the AD component. The ANG 7-skill level members report very little non-technical work time spent. Job interest and satisfaction is fairly high for AD airmen. However, reenlistment intent of first-enlistment airmen is a low 37 percent.

# APPENDIX A

## SELECTED REPRESENTATIVE TASKS PERFORMED BY SPECIALTY JOB GROUPS

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE A1

F-15 AVIONICS TEST STATION CLUSTER (ST 15)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| A0076 | Perform periodic inspections of test stations | 96 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 94 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 94 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 93 |
| A0022 | Clean test stations or test station equipment | 93 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 92 |
| A0098 | Remove or replace LRU minor hardware | 91 |
| A0099 | Remove or replace LRU pins or connectors | 91 |
| A0107 | Remove or replace test station minor hardware | 91 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 90 |
| L0685 | Change CAMS workcenter event narratives | 90 |
| A0108 | Remove or replace test station pins or connectors | 90 |
| A0103 | Remove or replace power supplies | 87 |
| A0021 | Clean shop facilities | 85 |
| A0084 | Prepare equipment for turn-in | 83 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 83 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 82 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 81 |
| A0129 | Solder components | 80 |
| A0109 | Remove or replace test station power supply components | 80 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 78 |
| L0696 | Defer equipment maintenance records in CAMS | 73 |
| A0029 | Fabricate or rebuild cables | 72 |
| L0689 | Conduct CAMS interface with base supply | 70 |
| A0036 | Interpret system diagrams or schematics | 68 |
| L0683 | Analyze CAMS data | 66 |
| L0684 | Change CAMS performing workcenter codes | 66 |
| A0081 | Perform safety wiring | 65 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 64 |
| A0071 | Pack or unpack LRUs for storage, shipment, or climatic conditions | 63 |
| A0030 | Identify calibration requirements | 63 |
| A0039 | Lubricate shop equipment | 61 |
| A0094 | Remove or replace circuit components | 58 |
| L0688 | Conduct CAMS delayed discrepancies inquiries prior to, during, or after scheduling maintenance | 58 |
| L0686 | Change equipment maintenance schedules in CAMS | 57 |
| L0693 | Correct CAMS errors noted during daily verification process | 57 |
| L0700 | Initiate equipment maintenance discrepancies in CAMS | 56 |
| L0694 | Correct CAMS job standard narratives | 56 |
| L0695 | Correct CAMS work unit codes | 54 |

TABLE A2

ENTRY-LEVEL CLUSTER (STAGE 18)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| A0076 | Perform periodic inspections of test stations | 100 |
| A0022 | Clean test stations or test station equipment | 100 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 97 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 94 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 94 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 94 |
| A0084 | Prepare equipment for turn-in | 87 |
| A0098 | Remove or replace LRU minor hardware | 87 |
| A0099 | Remove or replace LRU pins or connectors | 84 |
| A0107 | Remove or replace test station minor hardware | 81 |
| L0685 | Change CAMS workcenter event narratives | 81 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 77 |
| A0021 | Clean shop facilities | 77 |
| A0103 | Remove or replace power supplies | 77 |
| A0108 | Remove or replace test station pins or connectors | 77 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 74 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 74 |
| A0129 | Solder components | 74 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 71 |
| A0029 | Fabricate or rebuild cables | 65 |
| A0054 | Operationally check flight control computers | 61 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 61 |
| A0020 | Clean optical surfaces | 61 |
| L0689 | Conduct CAMS interface with base supply | 58 |
| A0036 | Interpret system diagrams or schematics | 55 |
| A0030 | Identify calibration requirements | 55 |
| D0324 | Operationally check displacement gyros (DGs) | 55 |
| K0680 | Troubleshoot RMRs | 52 |
| K0665 | Operationally check remote map readers (RMRs) | 52 |
| L0683 | Analyze CAMS data | 52 |
| K0666 | Operationally check up-front control panels (UFCPs) | 52 |
| K0681 | Troubleshoot UFCPs | 52 |
| K0663 | Operationally check engine monitor displays (EMDs) | 52 |
| K0677 | Troubleshoot EMDs | 52 |
| D0387 | Troubleshoot engine monitor displays | 52 |
| K0667 | Perform mobile electronic test set (METS) self-tests | 52 |
| L0686 | Change equipment maintenance schedules in CAMS | 52 |
| A0057 | Operationally check identification friend or foe (IFF) system components | 52 |
| K0673 | Repair RMRs | 48 |
| K0674 | Repair UFCPs | 48 |
| K0662 | Operationally check AIUs #2 | 48 |
| K0661 | Operationally check avionics interface units (AIUs) #1 | 48 |
| L0696 | Defer equipment maintenance records in CAMS | 48 |

TABLE A3

SUPERVISOR/MANAGER CLUSTER (STAGE 42)

| | REPRESENTATIVE TASKS | PERCENT MEMBERS PERFORMING |
|---|---|---|
| O0824 | Counsel subordinates concerning personal matters | 100 |
| O0861 | Write or indorse military performance reports | 98 |
| O0848 | Interpret policies, directives, or procedures for subordinates | 98 |
| O0842 | Evaluate personnel for compliance with performance standards | 98 |
| O0823 | Conduct supervisory performance feedback sessions | 98 |
| O0857 | Write recommendations for awards or decorations | 96 |
| O0847 | Inspect personnel for compliance with military standards | 93 |
| O0820 | Conduct self-inspections or self-assessments | 93 |
| O0832 | Develop or establish work schedules | 91 |
| O0843 | Evaluate personnel for promotion, demotion, reclassification, or special awards | 91 |
| O0837 | Establish performance standards for subordinates | 91 |
| O0845 | Initiate actions required due to substandard performance of personnel | 91 |
| O0822 | Conduct supervisory orientations for newly assigned personnel | 91 |
| O0826 | Determine or establish work assignments or priorities | 89 |
| O0844 | Implement safety or security programs | 89 |
| O0854 | Schedule personnel for temporary duty (TDY) assignments, leaves, or passes | 89 |
| O0838 | Establish procedures for accountability of equipment, tools, parts, or supplies | 87 |
| O0858 | Write replies to inspection reports | 82 |
| O0831 | Develop or establish work methods or procedures | 82 |
| O0841 | Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace | 82 |
| O0840 | Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) program | 82 |
| O0818 | Conduct general meetings, such as staff meetings, briefings, conferences, or workshops | 80 |
| O0819 | Conduct safety inspections of equipment or facilities | 80 |
| P0867 | Counsel trainees on training progress | 78 |
| O0816 | Assign personnel to work areas or duty positions | 78 |
| O0839 | Evaluate inspection report findings or inspection procedures | 78 |
| P0868 | Determine training requirements | 78 |
| P0878 | Maintain training records or files | 76 |
| O0830 | Develop self-inspection or self-assessment program checklists | 76 |
| O0825 | Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace | 76 |
| R0904 | Identify and report equipment or supply problems | 73 |
| R0903 | Evaluate serviceability of equipment, tools, parts, or supplies | 73 |
| P0863 | Brief personnel concerning training programs or matters | 73 |
| P0875 | Evaluate progress of trainees | 73 |
| Q0883 | Complete accident or incident reports | 73 |
| Q0896 | Maintain or update status indicators, such as boards, graphs, or charts | 67 |
| R0901 | Coordinate maintenance of equipment with appropriate agencies | 67 |
| R0905 | Initiate requisitions for equipment, tools, parts, or supplies | 67 |
| Q0882 | Compile data for records, reports, logs, or trend analyses | 64 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 62 |

TABLE A4

INSTRUCTOR JOB (STAGE 12)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| P0865 | Conduct formal course classroom training | 100 |
| P0862 | Administer or score tests | 100 |
| P0879 | Personalize lesson plans | 100 |
| P0867 | Counsel trainees on training progress | 100 |
| P0878 | Maintain training records or files | 80 |
| O0824 | Counsel subordinates concerning personal matters | 80 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 80 |
| A0036 | Interpret system diagrams or schematics | 60 |
| O0848 | Interpret policies, directives, or procedures for subordinates | 60 |
| P0869 | Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs) | 60 |
| P0871 | Develop written tests | 60 |
| O0847 | Inspect personnel for compliance with military standards | 60 |
| P0872 | Develop or procure training materials or aids | 60 |
| P0863 | Brief personnel concerning training programs or matters | 60 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 60 |
| O0842 | Evaluate personnel for compliance with performance standards | 60 |
| Q0891 | Inventory classified materials or documents | 60 |
| O0820 | Conduct self-inspections or self-assessments | 60 |
| L0690 | Conduct CAMS training | 60 |
| J0618 | Perform internal self-tests of TISSs | 60 |
| Q0882 | Compile data for records, reports, logs, or trend analyses | 40 |
| Q0894 | Maintain TO libraries | 40 |
| G0495 | Operationally check radar transmitters (011/111s) | 40 |
| P0864 | Complete student entry or withdrawal forms | 40 |
| P0875 | Evaluate progress of trainees | 40 |
| P0877 | Inspect training materials or aids for operation or suitability | 40 |

# APPENDIX B

## SELECTED REPRESENTATIVE TASKS PERFORMED BY THE SPECIALTY JOBS IN THE F-15 AVIONICS TEST STATION CLUSTER AND IN THE ENTRY LEVEL CLUSTER

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE B1

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOBS OF THE F-15 AVIONICS TEST STATION CLUSTER

| | DUTIES | TISS Job (ST 38) (N=81) | Antenna Test Station Job (ST 31) (N=62) | Displays Test Station Job (ST 108) (N=13) | Displays/ Computer Test Sta Job (ST 52) (N=73) | Test Station Job (ST 45) (N=81) |
|---|---|---|---|---|---|---|
| A | PERFORMING GENERAL AVIONICS MAINTENANCE ACTIVITIES | 27 | 30 | 27 | 21 | 21 |
| B | MAINTAINING MANUAL TEST SETS, MOCK-UPS, AND LRUS | 1 | 2 | 0 | 0 | 1 |
| C | MAINTAINING ELECTRONIC WARFARE TEST STATIONS AND LRUS | 0 | 0 | 0 | 0 | 1 |
| D | MAINTAINING F-15 COMPUTER TEST STATIONS AND LRUS | 0 | 1 | 0 | 14 | 8 |
| E | MAINTAINING F-15 DISPLAYS TEST STATIONS AND LRUS | 0 | 0 | 45 | 27 | 11 |
| F | MAINTAINING F-15 MICROWAVE TEST STATIONS AND LRUS | 0 | 0 | 9 | 13 | 5 |
| G | MAINTAINING F-15 ANTENNA A AND B TEST STATIONS AND LRUS | 2 | 34 | 0 | 1 | 9 |
| H | MAINTAINING F-15 COMMUNICATIONS, NAVIGATION, AND IDENTIFICATION (CNI) TEST STATIONS AND LRUS | 0 | 1 | 0 | 0 | 2 |
| I | MAINTAINING F-15 INDICATORS AND CONTROLS TEST STATIONS AND LRUS | 1 | 7 | 0 | 2 | 11 |
| J | MAINTAINING TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) INTERMEDIATE SUPPORT SYSTEM (TISS) AND LRUS | 40 | 2 | 0 | 1 | 11 |
| K | MAINTAINING MOBILE ELECTRONIC TEST SET AND LRUS | 1 | 2 | 0 | 3 | 2 |
| L | PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES | 12 | 11 | 11 | 9 | 7 |
| M | PERFORMING MOBILITY AND CONTIGENCY ACTIVITIES | 2 | 2 | 2 | 2 | 2 |
| N | PERFORMING GENERAL AIRCRAFT OR CROSS UTILIZATION TRAINING (CUT) ACTIVITIES | 0 | 0 | 0 | 0 | 0 |
| O | PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 6 | 3 | 2 | 3 | 3 |
| P | PERFORMING TRAINING ACTIVITIES | 3 | 2 | 2 | 1 | 2 |
| Q | PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES | 2 | 1 | 1 | 1 | 2 |
| R | PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 3 | 2 | 1 | 2 | 2 |

TABLE B2

TACTICAL INTERMEDIATE SUPPORT SYSTEM JOB (STAGE 38)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| J0658 | Troubleshoot TISSs | 100 |
| J0618 | Perform internal self-tests of TISSs | 100 |
| J0616 | Confidence test TISSs | 100 |
| J0617 | Diagnostic test TISSs | 100 |
| J0620 | Performance test TISSs | 99 |
| J0619 | Perform software maintenance on TISSs | 98 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 96 |
| J0646 | Repair TISSs | 96 |
| A0076 | Perform periodic inspections of test stations | 96 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 95 |
| J0637 | Repair AN/ALQ-135 band 1, 2, or 3 RF amplifiers | 94 |
| J0636 | Repair AN/ALQ-135 band 1, 2, or 3 control oscillators | 94 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 94 |
| A0022 | Clean test stations or test station equipment | 94 |
| J0649 | Troubleshoot AN/ALQ-135 band 1, 2, or 3 RF amplifiers | 93 |
| J0648 | Troubleshoot AN/ALQ-135 band 1, 2, or 3 control oscillators | 93 |
| L0685 | Change CAMS workcenter event narratives | 93 |
| A0099 | Remove or replace LRU pins or connectors | 93 |
| A0098 | Remove or replace LRU minor hardware | 91 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 91 |
| J0638 | Repair AN/ALQ-135 band 1, 2, or 3 tuning units | 90 |
| A0103 | Remove or replace power supplies | 90 |
| A0108 | Remove or replace test station pins or connectors | 90 |
| J0650 | Troubleshoot AN/ALQ-135 band 1, 2, or 3 tuning units | 89 |
| A0107 | Remove or replace test station minor hardware | 89 |
| J0643 | Repair AN/ALR-56A/C high-band receivers | 88 |
| J0644 | Repair AN/ALR-56C low-band receivers | 88 |
| J0623 | Program test AN/ALQ-135 band 1, 2, or 3 control oscillators | 88 |
| J0655 | Troubleshoot AN/ALR-56A/C high-band receivers | 86 |
| J0656 | Troubleshoot AN/ALR-56C low-band receivers | 86 |
| J0624 | Program test AN/ALQ-135 band 1, 2, or 3 RF amplifiers | 86 |
| J0621 | Program or reprogram AN/ALR-56 processors (LRUs-3A/2C) | 86 |
| A0084 | Prepare equipment for turn-in | 84 |
| J0625 | Program test AN/ALQ-135 band 1, 2, or 3 tuning units | 84 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 84 |
| J0657 | Troubleshoot AN/ALR-56C power supply processors | 83 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 81 |
| A0021 | Clean shop facilities | 81 |
| J0640 | Repair AN/ALR-56 TEWS displays | 81 |
| J0629 | Program test AN/ALR-56 A/C high-band receivers | 80 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 80 |
| J0645 | Repair AN/ALR-56C power supply processors | 80 |
| J0633 | Program test AN/ALR-56C low-band receivers | 79 |

TABLE B3

ANTENNA TEST STATION JOB (STAGE 31)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| G0495 | Operationally check radar transmitters (011/111s) | 97 |
| G0496 | Repair 011/111s | 97 |
| G0509 | Troubleshoot 011/111s | 97 |
| G0498 | Repair 610s | 97 |
| G0511 | Troubleshoot 610s | 97 |
| G0510 | Troubleshoot 031s | 95 |
| G0497 | Repair 031s | 94 |
| G0493 | Operationally check radar antennas (031s) | 94 |
| G0494 | Operationally check radar low-voltage power supplies (LVPSs) (610s) | 94 |
| A0081 | Perform safety wiring | 94 |
| A0076 | Perform periodic inspections of test stations | 94 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 94 |
| A0022 | Clean test stations or test station equipment | 92 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 89 |
| G0503 | Service antenna A test station hydraulic power supplies | 89 |
| A0099 | Remove or replace LRU pins or connectors | 89 |
| A0107 | Remove or replace test station minor hardware | 89 |
| A0098 | Remove or replace LRU minor hardware | 87 |
| G0512 | Troubleshoot antenna A test stations | 85 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 85 |
| G0491 | Operationally check antenna B test stations | 85 |
| G0490 | Operationally check antenna A test stations | 85 |
| G0487 | Confidence test antenna A test stations | 85 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 84 |
| G0514 | Troubleshoot antenna B test stations | 84 |
| G0513 | Troubleshoot antenna B test station TMFs | 84 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 82 |
| G0507 | Service antenna B test station transmitter mounting fixtures (TMFs) | 82 |
| G0488 | Confidence test antenna B test stations | 82 |
| G0504 | Service antenna B test station coolant conditioning units (CCUs) with coolant | 81 |
| A0108 | Remove or replace test station pins or connectors | 81 |
| G0499 | Repair antenna A test station TRUs | 79 |
| G0500 | Repair antenna B test station TRUs | 79 |
| A0021 | Clean shop facilities | 79 |
| A0103 | Remove or replace power supplies | 79 |
| A0129 | Solder components | 77 |
| L0685 | Change CAMS workcenter event narratives | 77 |
| A0095 | Remove or replace compressed gas bottles | 76 |
| G0485 | Calibrate antenna B test stations | 74 |
| G0484 | Calibrate antenna A test stations | 74 |
| G0506 | Service antenna B test station flush and fill units | 74 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 73 |

TABLE B4

DISPLAYS TEST STATION JOB (STAGE 108)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| E0416 | Program test multipurpose displays (MPDs) | 100 |
| E0455 | Troubleshoot MPDs | 100 |
| E0414 | Program test multipurpose color displays (MPCDs) | 100 |
| E0454 | Troubleshoot MPDPs | 100 |
| E0415 | Program test multipurpose display processors (MPDPs) | 100 |
| E0434 | Repair MPDPs | 100 |
| E0433 | Repair MPCDs | 100 |
| E0453 | Troubleshoot MPCDs | 100 |
| E0435 | Repair MPDs | 100 |
| E0420 | Program test wide field-of-view HUDs | 100 |
| E0439 | Repair wide field-of-view HUDs | 100 |
| E0425 | Repair CPs | 100 |
| E0444 | Troubleshoot CPs | 100 |
| E0418 | Program test radar target data processors (IREs) | 100 |
| E0432 | Repair IREs | 100 |
| E0421 | Repair 041/044s | 100 |
| E0440 | Troubleshoot 041/044s | 100 |
| E0452 | Troubleshoot IREs | 100 |
| E0398 | Confidence test displays test stations (DTSs) | 100 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 92 |
| E0459 | Troubleshoot wide field-of-view HUDs | 92 |
| E0404 | Program test converter programmers (CPs) | 92 |
| E0405 | Program test digital radar processors (041/044s) | 92 |
| E0446 | Troubleshoot DTSs | 92 |
| E0400 | Operationally check DTSs | 92 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 92 |
| A0103 | Remove or replace power supplies | 92 |
| A0108 | Remove or replace test station pins or connectors | 92 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 85 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 85 |
| A0098 | Remove or replace LRU minor hardware | 85 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 85 |
| A0022 | Clean test stations or test station equipment | 85 |
| A0076 | Perform periodic inspections of test stations | 85 |
| E0427 | Repair DTS TRUs | 85 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 77 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 77 |
| A0107 | Remove or replace test station minor hardware | 77 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 77 |
| A0099 | Remove or replace LRU pins or connectors | 77 |

TABLE B5

DISPLAYS/COMPUTERS TEST STATION JOB (STAGE 52)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 100 |
| E0452 | Troubleshoot IREs | 100 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 99 |
| A0076 | Perform periodic inspections of test stations | 99 |
| F0462 | Operationally check MTSs | 99 |
| E0398 | Confidence test displays test stations (DTSs) | 99 |
| E0433 | Repair MPCDs | 99 |
| E0432 | Repair IREs | 99 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 97 |
| F0460 | Confidence test microwave test stations (MTSs) | 97 |
| E0453 | Troubleshoot MPCDs | 97 |
| E0400 | Operationally check DTSs | 97 |
| A0107 | Remove or replace test station minor hardware | 97 |
| F0483 | Troubleshoot 081/082s | 97 |
| A0108 | Remove or replace test station pins or connectors | 97 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 96 |
| F0477 | Troubleshoot MTSs | 96 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 96 |
| A0022 | Clean test stations or test station equipment | 96 |
| E0457 | Troubleshoot PSDPs | 96 |
| F0476 | Repair 081/082s | 96 |
| A0098 | Remove or replace LRU minor hardware | 95 |
| E0437 | Repair PSDPs | 95 |
| A0099 | Remove or replace LRU pins or connectors | 95 |
| A0021 | Clean shop facilities | 93 |
| E0418 | Program test radar target data processors (IREs) | 93 |
| E0430 | Repair HUD SDPs | 93 |
| E0417 | Program test programmable signal data processors (PSDPs) | 93 |
| E0424 | Repair ANMIs | 92 |
| E0443 | Troubleshoot ANMIs | 92 |
| L0685 | Change CAMS workcenter event narratives | 92 |
| F0466 | Program test radar data processors (081/082s) | 92 |
| E0414 | Program test multipurpose color displays (MPCDs) | 92 |
| E0450 | Troubleshoot HUD SDPs | 90 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 89 |
| F0463 | Perform microwave harmonization procedures | 89 |
| E0451 | Troubleshoot HUDs, other than wide field-of-view HUDs | 88 |
| A0084 | Prepare equipment for turn-in | 88 |
| E0441 | Troubleshoot 042s | 88 |
| A0103 | Remove or replace power supplies | 88 |
| F0470 | Repair MTS TRUs | 86 |
| A0168 | Use avionics intermediate shop (AIS) menu systems | 86 |
| F0472 | Repair 022s | 86 |
| E0427 | Repair DTS TRUs | 86 |

TABLE B6

TEST STATION JOB (STAGE 45)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 100 |
| L0685 | Change CAMS workcenter event narratives | 100 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 98 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 98 |
| A0076 | Perform periodic inspections of test stations | 98 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 98 |
| A0021 | Clean shop facilities | 95 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 95 |
| A0022 | Clean test stations or test station equipment | 95 |
| A0107 | Remove or replace test station minor hardware | 95 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 93 |
| G0511 | Troubleshoot 610s | 93 |
| G0498 | Repair 610s | 93 |
| A0084 | Prepare equipment for turn-in | 93 |
| A0099 | Remove or replace LRU pins or connectors | 93 |
| A0108 | Remove or replace test station pins or connectors | 93 |
| G0510 | Troubleshoot 031s | 91 |
| A0098 | Remove or replace LRU minor hardware | 91 |
| G0509 | Troubleshoot 011/111s | 90 |
| G0497 | Repair 031s | 90 |
| G0494 | Operationally check radar low-voltage power supplies (LVPSs) (610s) | 90 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 90 |
| G0493 | Operationally check radar antennas (031s) | 89 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 89 |
| A0103 | Remove or replace power supplies | 89 |
| A0109 | Remove or replace test station power supply components | 89 |
| G0495 | Operationally check radar transmitters (011/111s) | 88 |
| A0129 | Solder components | 88 |
| A0081 | Perform safety wiring | 88 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 88 |
| G0503 | Service antenna A test station hydraulic power supplies | 86 |
| G0496 | Repair 011/111s | 85 |
| G0512 | Troubleshoot antenna A test stations | 85 |
| G0499 | Repair antenna A test station TRUs | 85 |
| G0500 | Repair antenna B test station TRUs | 85 |
| I0546 | Operationally check I&C test stations | 85 |
| A0029 | Fabricate or rebuild cables | 85 |
| A0057 | Operationally check identification friend or foe (IFF) system components | 85 |
| L0696 | Defer equipment maintenance records in CAMS | 84 |
| G0504 | Service antenna B test station coolant conditioning units (CCUs) with coolant | 84 |
| G0506 | Service antenna B test station flush and fill units | 84 |
| I0527 | Confidence test indicators and controls (I&C) test stations | 84 |
| L0684 | Change CAMS performing workcenter codes | 83 |
| G0514 | Troubleshoot antenna B test stations | 83 |

TABLE B7

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOBS OF THE ENTRY-LEVEL CLUSTER

| DUTIES | | Microwave Test Station Job (ST 60) (N=11) | Mobile/Electronic Test Set Job (ST 59) (N=15) |
|---|---|---|---|
| A | PERFORMING GENERAL AVIONICS MAINTENANCE ACTIVITIES | 44 | 36 |
| B | MAINTAINING MANUAL TEST SETS, MOCK-UPS, AND LRUS | 0 | 2 |
| C | MAINTAINING ELECTRONIC WARFARE TEST STATIONS AND LRUS | 0 | 0 |
| D | MAINTAINING F-15 COMPUTER TEST STATIONS AND LRUS | 2 | 12 |
| E | MAINTAINING F-15 DISPLAYS TEST STATIONS AND LRUS | 9 | 0 |
| F | MAINTAINING F-15 MICROWAVE TEST STATIONS AND LRUS | 23 | 0 |
| G | MAINTAINING F-15 ANTENNA A AND B TEST STATIONS AND LRUS | 0 | 0 |
| H | MAINTAINING F-15 COMMUNICATIONS, NAVIGATION, AND IDENTIFICATION (CNI) TEST STATIONS AND LRUS | 0 | 1 |
| I | MAINTAINING F-15 INDICATORS AND CONTROLS TEST STATIONS AND LRUS | 0 | 4 |
| J | MAINTAINING TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) INTERMEDIATE SUPPORT SYSTEM (TISS) AND LRUS | 0 | 0 |
| K | MAINTAINING MOBILE ELECTRONIC TEST SET AND LRUS | 0 | 28 |
| L | PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES | 13 | 11 |
| M | PERFORMING MOBILITY AND CONTIGENCY ACTIVITIES | 2 | 2 |
| N | PERFORMING GENERAL AIRCRAFT OR CROSS UTILIZATION TRAINING (CUT) ACTIVITIES | 0 | 0 |
| O | PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 1 | 1 |
| P | PERFORMING TRAINING ACTIVITIES | 2 | 1 |
| Q | PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES | 1 | 1 |
| R | PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 3 | 1 |

TABLE B8

MICROWAVE TEST STATION JOB (STAGE 60)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| A0073 | Perform electrostatic discharge (ESD) procedures | 100 |
| A0076 | Perform periodic inspections of test stations | 100 |
| A0084 | Prepare equipment for turn-in | 100 |
| A0098 | Remove or replace LRU minor hardware | 100 |
| A0107 | Remove or replace test station minor hardware | 100 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 100 |
| A0074 | Perform functional checks or test and inspection (T and I) of LRUs issued from supply | 100 |
| A0022 | Clean test stations or test station equipment | 100 |
| A0099 | Remove or replace LRU pins or connectors | 100 |
| A0075 | Perform operational assurance/fault isolation (OA/FI) tests | 100 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 100 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 91 |
| A0103 | Remove or replace power supplies | 91 |
| A0108 | Remove or replace test station pins or connectors | 91 |
| A0029 | Fabricate or rebuild cables | 91 |
| F0462 | Operationally check MTSs | 82 |
| A0032 | Inspect or clean simulators, mock-ups, or line replaceable units (LRUs) | 82 |
| F0476 | Repair 081/082s | 82 |
| F0460 | Confidence test microwave test stations (MTSs) | 82 |
| F0483 | Troubleshoot 081/082s | 82 |
| L0687 | Clear or close out completed maintenance discrepancies in CAMS | 82 |
| A0021 | Clean shop facilities | 82 |
| A0083 | Perform time compliance technical order (TCTO) inspections or modifications | 82 |
| A0094 | Remove or replace circuit components | 73 |
| A0129 | Solder components | 73 |
| F0463 | Perform microwave harmonization procedures | 73 |
| F0477 | Troubleshoot MTSs | 64 |
| F0470 | Repair MTS TRUs | 64 |
| A0036 | Interpret system diagrams or schematics | 64 |
| L0683 | Analyze CAMS data | 64 |
| A0037 | Invoke classified operating systems (COSs) | 64 |
| F0466 | Program test radar data processors (081/082s) | 55 |
| F0480 | Troubleshoot 025s | 45 |
| F0473 | Repair 025s | 45 |
| F0481 | Troubleshoot 038s | 45 |
| F0474 | Repair 038s | 45 |

TABLE B9

MOBILE ELECTRONIC TEST SET JOB (STAGE 59)

| REPRESENTATIVE TASKS | | PERCENT MEMBERS PERFORMING |
|---|---|---|
| K0680 | Troubleshoot RMRs | 100 |
| K0665 | Operationally check remote map readers (RMRs) | 100 |
| L0682 | Access core automated maintenance system (CAMS) menus and data screens | 100 |
| K0666 | Operationally check up-front control panels (UFCPs) | 100 |
| A0076 | Perform periodic inspections of test stations | 100 |
| K0681 | Troubleshoot UFCPs | 100 |
| A0022 | Clean test stations or test station equipment | 100 |
| K0663 | Operationally check engine monitor displays (EMDs) | 100 |
| K0677 | Troubleshoot EMDs | 100 |
| K0667 | Perform mobile electronic test set (METS) self-tests | 100 |
| D0387 | Troubleshoot engine monitor displays | 100 |
| A0073 | Perform electrostatic discharge (ESD) procedures | 93 |
| K0673 | Repair RMRs | 93 |
| K0674 | Repair UFCPs | 93 |
| K0661 | Operationally check avionics interface units (AIUs) #1 | 93 |
| K0662 | Operationally check AIUs #2 | 93 |
| A0054 | Operationally check flight control computers | 93 |
| K0670 | Repair EMDs | 93 |
| K0664 | Operationally check intercommunications set control panels (ICSCPs) | 93 |
| K0675 | Troubleshoot AIUs #1 | 93 |
| K0676 | Troubleshoot AIUs #2 | 93 |
| K0679 | Troubleshoot METSs | 93 |
| K0678 | Troubleshoot ICSCPs | 93 |
| A0057 | Operationally check identification friend or foe (IFF) system components | 93 |
| D0324 | Operationally check displacement gyros (DGs) | 93 |
| A0072 | Perform corrosion control on test stations, test equipment, or LRUs | 87 |
| A0023 | Conduct scheduled inventories of test stations, cabinets, rollaways, simulators, or mock-ups | 87 |
| K0669 | Repair AIUs #2 | 87 |
| K0668 | Repair AIUs #1 | 87 |
| D0326 | Operationally check engine monitor displays | 87 |
| L0685 | Change CAMS workcenter event narratives | 87 |
| D0325 | Operationally check electronic control amplifiers (ECAs) | 87 |
| A0021 | Clean shop facilities | 80 |
| A0129 | Solder components | 80 |
| D0362 | Repair EAICs | 80 |
| K0671 | Repair ICSCPs | 80 |
| A0045 | Operationally check ARC-164 UHF RTs | 80 |
| A0084 | Prepare equipment for turn-in | 73 |
| A0098 | Remove or replace LRU minor hardware | 73 |
| D0384 | Troubleshoot EAICs | 73 |

**THIS PAGE INTENTIONALLY LEFT BLANK**